

Water Quality Standards for Surface Waters of the State of Washington Chapter 173-201A WAC

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PART I - INTRODUCTION

AMENDATORY SECTION (Amending Order 92-29, filed 11/25/92, effective 12/26/92)

WAC 173-201A-010 ((Introduction.)) Purpose.

(1) The purpose of this chapter is to establish water quality standards for surface waters of the state of Washington consistent with public health and public enjoyment ~~((thereof,))~~ of the waters and the propagation and protection of fish, shellfish, and wildlife, pursuant to the provisions of chapter 90.48 RCW ~~((and the policies and purposes thereof))~~. All actions must comply with this chapter.
As part of this chapter:

(a) All surface waters are protected by narrative criteria, designated uses, and an antidegradation policy.

(b) Based on the use designations, numeric and narrative criteria are assigned to a water body to protect the existing and designated uses.

(c) Where multiple criteria for the same water quality parameter are assigned to a water body to protect different uses, the most stringent criteria for each parameter is to be applied.

(2) Surface waters of the state include lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands, and all other surface waters and water courses within the jurisdiction of the state of Washington.

~~((2))~~ (3) This chapter ((shall)) will be reviewed periodically by the department and appropriate revisions ((shall)) will be undertaken.

~~((3) The water use and quality criteria set forth in WAC 173-201A-030 through 173-201A-140 are established in conformance with present and potential water uses of the surface waters of the state of Washington and in consideration of the natural water quality potential and limitations of the same. Compliance with the surface water quality standards of the state of Washington require compliance with chapter 173-201A WAC, Water quality standards for surface waters of the state of Washington, and chapter 173-204 WAC, Sediment management standards.))~~

(4) WAC 173-201A-200 through 173-201A-260 describe the designated water uses and criteria for the state of Washington. These criteria were established based on existing and potential water uses of the surface waters of the state. Consideration was also given to both the natural water quality potential and its limitations. Compliance with the surface water quality standards of the state of Washington requires compliance with chapter 173-201A WAC, Water quality standards for surface waters of the state of Washington, chapter 173-204 WAC, Sediment management standards, and applicable federal rules.

AMENDATORY SECTION (Amending Order 94-19, filed 11/18/97, effective 12/19/97)

WAC 173-201A-020 Definitions.

The following definitions are intended to facilitate the use of chapter 173-201A WAC:

"1-DMax" or "1-day maximum temperature" is the highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

"7-DADMax" or "7-day average of the daily maximum temperatures" is the arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily

maximum temperatures of the three days prior and the three days after that date.

"Action value" means a total phosphorus (TP) value established at the upper limit of the trophic states in each ecoregion. Exceedance of an action value indicates that a problem is suspected. A lake-specific study may be needed to confirm if a nutrient problem exists.

"Actions" refers broadly to any human projects or activities.

"Acute conditions" are changes in the physical, chemical, or biologic environment which are expected or demonstrated to result in injury or death to an organism as a result of short-term exposure to the substance or detrimental environmental condition.

"AKART" is an acronym for "all known, available, and reasonable methods of prevention, control, and treatment." AKART shall represent the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with a discharge. The concept of AKART applies to both point and nonpoint sources of pollution. The term "best management practices," typically applied to nonpoint source pollution controls is considered a subset of the AKART requirement. (~~("The Stormwater Management Manual for the Puget Sound Basin" (1992), may be used as a guideline, to the extent appropriate, for developing best management practices to apply AKART for storm water discharges.))~~)

"Background ((conditions))" means the biological, chemical, and physical conditions of a water body, outside the area of influence of the discharge under consideration. Background sampling locations in an enforcement action would be up-gradient or outside the area of influence of the discharge. If several discharges to any water body exist, and enforcement action is being taken for possible violations to the standards, background sampling would be undertaken immediately up-gradient from each discharge. (~~((When assessing background conditions in the headwaters of a disturbed watershed it may be necessary to use the background conditions of a neighboring or similar watershed as the reference conditions.))~~)

"Best management practices (BMP)" means physical, structural, and/or managerial practices approved by the department that, when used singularly or in combination, prevent or reduce pollutant discharges.

"Biological assessment" is an evaluation of the biological condition of a water body using surveys of aquatic community structure and function and other direct measurements of resident biota in surface waters.

"Bog" means those wetlands that are acidic, peat forming, and whose primary water source is precipitation, with little, if any, outflow.

"Carcinogen" means any substance or agent that produces or tends to produce cancer in humans. For implementation of this chapter, the term carcinogen will apply to substances on the United States Environmental Protection Agency lists of A (known human) and B (probable human) carcinogens, and any substance which causes a significant increased incidence of benign or malignant tumors in a single, well conducted animal bioassay, consistent with the weight of evidence approach specified in the United States Environmental Protection Agency's Guidelines for Carcinogenic Risk Assessment as set forth in 51 FR 33992 et seq. as presently published or as

subsequently amended or republished.

"Chronic conditions" are changes in the physical, chemical, or biologic environment which are expected or demonstrated to result in injury or death to an organism as a result of repeated or constant exposure over an extended period of time to a substance or detrimental environmental condition.

"Created wetlands" means those wetlands intentionally created from nonwetland sites to produce or replace natural wetland habitat.

"Critical condition" is when the physical, chemical, and biological characteristics of the receiving water environment interact with the effluent to produce the greatest potential adverse impact on aquatic biota and existing or ~~((characteristic))~~ designated water uses. For steady-state discharges to riverine systems the critical condition may be assumed to be equal to the 7Q10 flow event unless determined otherwise by the department.

"Damage to the ecosystem" means any demonstrated or predicted stress to aquatic or terrestrial organisms or communities of organisms which the department reasonably concludes may interfere in the health or survival success or natural structure of such populations. This stress may be due to, but is not limited to, alteration in habitat or changes in water temperature, chemistry, or turbidity, and shall consider the potential build up of discharge constituents or temporal increases in habitat alteration which may create such stress in the long term.

"Department" means the state of Washington department of ecology.

"Designated uses" are those uses specified in this chapter for each water body or segment, regardless of whether or not the uses are currently attained.

"Director" means the director of the state of Washington department of ecology.

"Drainage ditch" means that portion of a designed and constructed conveyance system that serves the purpose of transporting surplus water; this may include natural water courses or channels incorporated in the system design, but does not include the area adjacent to the water course or channel.

"Ecoregions" are defined using EPAs *Ecoregions of the Pacific Northwest* Document No. 600/3-86/033 July 1986 by Omernik and Gallant.

"Enterococci" refers to a subgroup of the fecal streptococci that includes *S. faecalis*, *S. faecium*, *S. gallinarum*, and *S. avium*. The enterococci are differentiated from other streptococci by their ability to grow in 6.5% sodium chloride, at pH 9.6, and at 10°C and 45°C.

"*E. coli*" or "*Escherichia coli*" is an aerobic and facultative gram negative nonspore forming rod shaped bacterium that can grow at 44.5 degrees Celsius that is ortho-nitrophenyl-B-D-galactopyranoside (ONPG) positive and Methylumbelliferyl glucuronide (MUG) positive.

"Existing uses" means those uses actually attained in fresh or marine waters on or after

November 28, 1975, whether or not they are designated uses. Introduced species that are not native to Washington, and put-and-take fisheries comprised of nonself-replicating introduced native species, do not need to receive full support as an existing use.

"Extraordinary primary contact" means waters providing extraordinary protection against waterborne disease or that serve as tributaries to extraordinary quality shellfish harvesting areas.

"Fecal coliform" means that portion of the coliform group which is present in the intestinal tracts and feces of warm-blooded animals as detected by the product of acid or gas from lactose in a suitable culture medium within twenty-four hours at 44.5 plus or minus 0.2 degrees Celsius.

"Geometric mean" means either the nth root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

"Ground water exchange" means the discharge and recharge of ground water to a surface water. Discharge is inflow from an aquifer, seeps or springs that increases the available supply of surface water. Recharge is outflow downgradient to an aquifer or downstream to surface water for base flow maintenance. Exchange may include ground water discharge in one season followed by recharge later in the year.

"Hardness" means a measure of the calcium and magnesium salts present in water. For purposes of this chapter, hardness is measured in milligrams per liter and expressed as calcium carbonate (CaCO_3).

"Irrigation ditch" means that portion of a designed and constructed conveyance system that serves the purpose of transporting irrigation water from its supply source to its place of use; this may include natural water courses or channels incorporated in the system design, but does not include the area adjacent to the water course or channel.

"Lakes" shall be distinguished from riverine systems as being water bodies, including reservoirs, with a mean detention time of greater than fifteen days.

"Lake-specific study" means a study intended to quantify existing nutrient concentrations, determine existing characteristic uses for lake class waters, and potential lake uses. The study determines how to protect these uses and if any uses are lost or impaired because of nutrients, algae, or aquatic plants. An appropriate study must recommend a criterion for total phosphorus (TP), total nitrogen (TN) in $\mu\text{g/l}$, or other nutrient that impairs characteristic uses by causing excessive algae blooms or aquatic plant growth.

"Mean detention time" means the time obtained by dividing a reservoir's mean annual minimum total storage by the thirty-day ten-year low-flow from the reservoir.

"Migration or translocation" means any natural movement of an organism or community of organisms from one locality to another locality.

"Mixing zone" means that portion of a water body adjacent to an effluent outfall where mixing results in the dilution of the effluent with the receiving water. Water quality criteria may be exceeded in a mixing zone as conditioned and provided for in WAC ((173-201A-100))

"Natural conditions" or "natural background levels" means surface water quality that was present before any human-caused pollution. When estimating natural conditions in the headwaters of a disturbed watershed it may be necessary to use the less disturbed conditions of a neighboring or similar watershed as a reference condition. (See also WAC 173-201A-260(1).)

"New or expanded actions" mean human actions that occur or are regulated for the first time, or human actions expanded such that they result in an increase in pollution, after July 1, 2003, for the purpose of applying this chapter only.

"Nonpoint source" means pollution that enters any waters of the state from any dispersed land-based or water-based activities, including but not limited to atmospheric deposition, surface water runoff from agricultural lands, urban areas, or forest lands, subsurface or underground sources, or discharges from boats or marine vessels not otherwise regulated under the National Pollutant Discharge Elimination System program.

"Permit" means a document issued pursuant to chapter 90.48 RCW (~~(90.48.160 et seq. or RCW 90.48.260 or both,)~~) specifying the waste treatment and control requirements and waste discharge conditions.

"pH" means the negative logarithm of the hydrogen ion concentration.

"Pollution" means such contamination, or other alteration of the physical, chemical, or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental, or injurious to the public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life.

"Primary contact recreation" means activities where a person would have direct contact with water to the point of complete submergence including, but not limited to, skin diving, swimming, and water skiing.

"Secondary contact recreation" means activities where a person's water contact would be limited (e.g., wading or fishing) to the extent that bacterial infections of eyes, ears, respiratory or digestive systems, or urogenital areas would normally be avoided.

"Shoreline stabilization" means the anchoring of soil at the water's edge, or in shallow water, by fibrous plant root complexes; this may include long-term accretion of sediment or peat, along with shoreline progradation in such areas.

"Storm water" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

"Storm water attenuation" means the process by which peak flows from precipitation are

reduced and runoff velocities are slowed as a result of passing through a surface water body.

"Surface waters of the state" includes lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands and all other surface waters and water courses within the jurisdiction of the state of Washington.

"Temperature" means water temperature expressed in degrees Celsius (°C).

"Treatment wetlands" means those wetlands intentionally constructed on nonwetland sites and managed for the primary purpose of wastewater or storm water treatment. Treatment wetlands are considered part of a collection and treatment system, and generally are not subject to the criteria of this chapter.

"Trophic state" means a classification of the productivity of a lake ecosystem. Lake productivity depends on the amount of biologically available nutrients in water and sediments and may be based on total phosphorus (TP). Secchi depth and chlorophyll-a measurements may be used to improve the trophic state classification of a lake. Trophic states used in this rule include, from least to most nutrient rich, ultra-oligotrophic, oligotrophic, lower mesotrophic, upper mesotrophic, and eutrophic.

"Turbidity" means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

"Upwelling" means the natural process along Washington's Pacific Coast where the summer prevailing northerly winds produce a seaward transport of surface water. Cold, deeper more saline waters rich in nutrients and low in dissolved oxygen, rise to replace the surface water. The cold oxygen deficient water enters Puget Sound and other coastal estuaries at depth where it displaces the existing deep water and eventually rises to replace the surface water. Such surface water replacement results in an overall increase in salinity and nutrients accompanied by a depression in dissolved oxygen. Localized upwelling of the deeper water of Puget Sound can occur year-round under influence of tidal currents, winds, and geomorphic features.

"USEPA" means the United States Environmental Protection Agency.

"Wetlands" means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands. (Water bodies not included in the definition of wetlands as well as those mentioned in the definition are still waters of the state.)

"Wildlife habitat" means waters of the state used by, or that directly or indirectly provide food support to, fish, other aquatic life, and wildlife for any life history stage or activity.

PART II - DESIGNATED USES AND CRITERIA

NEW SECTION

WAC 173-201A-200 Fresh water designated uses and criteria.

The following uses are designated for protection in fresh surface waters of the state. Use designations for water bodies are listed in WAC 173-201A-600 and 173-201A-602.

(1) **Aquatic life uses.** Aquatic life uses are designated using the following categories of key species. It is required that all indigenous fish and nonfish aquatic species be protected in waters of the state in addition to the key species described below.

(a) The categories for aquatic life uses are:

(i) **Char.** For the protection of spawning and early tributary rearing (e.g., first year juveniles) of native char (bull trout and Dolly Varden), and other associated aquatic life.

(ii) **Salmon and trout spawning, core rearing, and migration.** For the protection of spawning, core rearing, and migration of salmon and trout, and other associated aquatic life.

(iii) **Salmon and trout spawning, noncore rearing, and migration.** For the protection of spawning, noncore rearing, and migration of salmon and trout, and other associated aquatic life.

(iv) **Salmon and trout rearing and migration only.** For the protection of rearing and migration of salmon and trout, and other associated aquatic life.

(v) **Non-anadromous interior redband trout.** For the protection of waters where the only trout species is a non-anadromous form of self-reproducing interior redband trout (*O. mykiss*), and other associated aquatic life.

(vi) **Indigenous warm water species.** For the protection of waters where the dominant species under natural conditions would be temperature tolerant indigenous nonsalmonid species. Examples include dace, redbelt shiner, chiselmouth, sucker, and northern pikeminnow.

(b) **General criteria.** General criteria that apply to all aquatic life fresh water uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

(i) Toxic, radioactive, and deleterious materials; and

(ii) Aesthetic values.

(c) **Aquatic life temperature criteria.** Except where noted, water temperature is measured by the 7-day average of the daily maximum temperatures (7-DADMax). Table 200(1)(c) lists the temperature criteria for each of the aquatic life use categories.

Table 200(1)(c)
Aquatic Life Temperature Criteria in Fresh
Water

Category	Highest 7-DADMax
Char	12 °C (53.6 °F)
Salmon and Trout Spawning, Core Rearing, and Migration	16 °C (60.8 °F)
Salmon and Trout Spawning, Noncore Rearing, and Migration	17.5 °C (63.5 °F)
Salmon and Trout Rearing and Migration Only	17.5 °C (63.5 °F)

Non-anadromous Interior Redband Trout	18 °C (64.4 °F)
Indigenous Warm Water Species	20 °C (68 °F)

(i) When a water body's temperature is warmer than the criteria in Table 200(1)(c) (or within 0.3 °C (0.54 °F) of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the 7-DADMax temperature of that water body to increase more than 0.3 °C (0.54 °F).

(ii) When the natural condition of the water is cooler than the criteria in Table 200(1)(c), the allowable rate of warming up to, but not exceeding, the numeric criteria from human actions is restricted as follows:

(A) Incremental temperature increases resulting from individual point source activities must not, at any time, exceed $28/(T.+5)$ as measured at the edge of a mixing zone boundary (where "T" represents the background temperature as measured at a point or points unaffected by the discharge and representative of the highest ambient water temperature in the vicinity of the discharge); and

(B) Incremental temperature increases resulting from the combined effect of all nonpoint source activities in the water body must not, at any time, exceed 2.8 °C (5.04 °F).

(iii) Temperatures are not to exceed the criteria at a probability frequency of more than once every ten years on average.

(iv) Spawning and incubation protection. Where the department determines the temperature criteria established for a water body would likely not result in protective spawning and incubation temperatures, the following criteria apply:

- Maximum 7-DADMax temperatures of 9 °C (48.2 °F) at the initiation of spawning and at fry emergence for char; and
- Maximum 7-DADMax temperatures of 13 °C (55.4 °F) at the initiation of spawning for salmon and at fry emergence for salmon and trout.

The two criteria above are protective of incubation as long as human actions do not significantly disrupt the normal patterns of fall cooling and spring warming that provide significantly colder temperatures over the majority of the incubation period. The department will maintain a list of waters where the single-summer maximum criterion is not sufficient to protect spawning and incubation.

(v) For lakes, human actions considered cumulatively may not increase the 7-DADMax temperature more than 0.3 °C (0.54 °F) above natural conditions.

(vi) Temperature measurements should be taken to represent the dominant aquatic habitat of the monitoring site. This typically means samples should:

(A) Be taken from well mixed portions of rivers and streams; and

(B) Not be taken from shallow stagnant backwater areas, within isolated thermal refuges, at the surface, or at the water's edge.

(vii) The department will incorporate the following guidelines on preventing acute lethality and barriers to migration of salmonids into determinations of compliance with the narrative requirements for use protection established in this chapter (e.g., WAC 173-201A-310(1), 173-201A-400(4), and 173-201A-410 (1)(c)). The following site-level considerations do not, however, override the temperature criteria established for waters in subsection (1)(c) of this section or WAC 173-201A-602:

(A) Moderately acclimated (16-20°C, or 60.8-68°F) adult and juvenile salmonids will generally be protected from acute lethality by discrete human actions maintaining the 7-DADMax

temperature at or below 22°C (71.6°F) and the 1-day maximum (1-DMax) temperature at or below 23°C (73.4°F).

(B) Lethality to developing fish embryos can be expected to occur at a 1-DMax temperature greater than 17.5°C (63.5°F).

(C) To protect aquatic organisms, discharge plume temperatures must be maintained such that fish could not be entrained (based on plume time of travel) for more than two seconds at temperatures above 33°C (91.4°F) to avoid creating areas that will cause near instantaneous lethality.

(D) Barriers to adult salmonid migration are assumed to exist any time the 1-DMax temperature is greater than 22°C (71.6°F) and the adjacent downstream water temperatures are 3°C (5.4°F) or more cooler.

(viii) Nothing in this chapter shall be interpreted to prohibit the establishment of effluent limitations for the control of the thermal component of any discharge in accordance with 33 U.S.C. 1326 (commonly known as section 316 of the Clean Water Act).

(d) **Aquatic life dissolved oxygen (D.O.) criteria.** The D.O. criteria are measured in milligrams per liter (mg/L). Table 200(1)(d) lists the 1-day minimum D.O. for each of the aquatic life use categories.

Table 200(1)(d)
Aquatic Life Dissolved Oxygen Criteria in
Fresh Water

Category	Lowest 1-Day Minimum
Char	9.5 mg/L
Salmon and Trout Spawning, Core Rearing, and Migration	9.5 mg/L
Salmon and Trout Spawning, Noncore Rearing, and Migration	8.0 mg/L
Salmon and Trout Rearing and Migration Only	6.5 mg/L
Non-anadromous Interior Redband Trout	8.0 mg/L
Indigenous Warm Water Species	6.5 mg/L

(i) When a water body's D.O. is lower than the criteria in Table 200(1)(d) (or within 0.2 mg/L of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the D.O. of that water body to decrease more than 0.2 mg/L.

(ii) For lakes, human actions considered cumulatively may not decrease the dissolved oxygen concentration more than 0.2 mg/L below natural conditions.

(iii) Concentrations of D.O. are not to fall below the criteria in the table at a probability frequency of more than once every ten years on average.

(iv) D.O. measurements should be taken to represent the dominant aquatic habitat of the monitoring site. This typically means samples should:

(A) Be taken from well mixed portions of rivers and streams; and

(B) Not be taken from shallow stagnant backwater areas, within isolated thermal refuges, at the surface, or at the water's edge.

(e) **Aquatic life turbidity criteria.** Turbidity is measured in "nephelometric turbidity

units" or "NTUs." Table 200(1)(e) lists the maximum turbidity criteria for each of the aquatic life use categories.

Table 200(1)(e)
Aquatic Life Turbidity Criteria in Fresh Water

Category	NTUs
Char	Turbidity shall not exceed: <ul style="list-style-type: none"> • 5 NTU over background when the background is 50 NTU or less; or • A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Salmon and Trout Spawning, Core Rearing, and Migration	Same as above.
Salmon and Trout Spawning, Noncore Rearing, and Migration	Same as above.
Salmon and Trout Rearing and Migration Only	Turbidity shall not exceed: <ul style="list-style-type: none"> • 10 NTU over background when the background is 50 NTU or less; or • A 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
Non-anadromous Interior Redband Trout	Turbidity shall not exceed: <ul style="list-style-type: none"> • 5 NTU over background when the background is 50 NTU or less; or • A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Indigenous Warm Water Species	Turbidity shall not exceed: <ul style="list-style-type: none"> • 10 NTU over background when the background is 50 NTU or less; or • A 20 percent increase in turbidity when the background turbidity is more than 50 NTU.

(i) The turbidity criteria established under WAC 173-201A-200 (1)(e) shall be modified, without specific written authorization from the department, to allow a temporary area of mixing during and immediately after necessary in-water construction activities that result in the disturbance of in-place sediments. This temporary area of mixing is subject to the constraints of WAC 173-201A-400 (4) and (6) and can occur only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices to avoid or minimize disturbance of in-place sediments and exceedances of the turbidity criteria. A temporary area of mixing shall be as follows:

(A) For waters up to 10 cfs flow at the time of construction, the point of compliance shall be one hundred feet downstream from the activity causing the turbidity exceedance.

(B) For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of

compliance shall be two hundred feet downstream of the activity causing the turbidity exceedance.

(C) For waters above 100 cfs flow at the time of construction, the point of compliance shall be three hundred feet downstream of the activity causing the turbidity exceedance.

(D) For projects working within or along lakes, ponds, wetlands, estuaries, marine waters or other nonflowing waters, the point of compliance shall be at a radius of one hundred fifty feet from the activity causing the turbidity exceedance.

(f) **Aquatic life total dissolved gas (TDG) criteria.** TDG is measured in percent saturation. Table 200(1)(f) lists the maximum TDG criteria for each of the aquatic life use categories.

Table 200(1)(f)
Aquatic Life Total Dissolved Gas Criteria in
Fresh Water

Category	Percent Saturation
Char	Total dissolved gas shall not exceed 110 percent of saturation at any point of sample collection.
Salmon and Trout Spawning, Core Rearing, and Migration	Same as above.
Salmon and Trout Spawning, Noncore Rearing, and Migration	Same as above.
Salmon and Trout Rearing and Migration Only	Same as above.
Non-anadromous Interior Redband Trout	Same as above.
Indigenous Warm Water Species	Same as above.

(i) The water quality criteria established in this chapter for TDG shall not apply when the stream flow exceeds the seven-day, ten-year frequency flood.

(ii) The TDG criteria may be adjusted to aid fish passage over hydroelectric dams when consistent with a department approved gas abatement plan. This plan must be accompanied by fisheries management and physical and biological monitoring plans. The elevated TDG levels are intended to allow increased fish passage without causing more harm to fish populations than caused by turbine fish passage. The following special fish passage exemptions for the Snake and Columbia rivers apply when spilling water at dams is necessary to aid fish passage:

- TDG must not exceed an average of one hundred fifteen percent as measured in the forebays of the next downstream dams and must not exceed an average of one hundred twenty percent as measured in the tailraces of each dam (these averages are measured as an average of the twelve highest consecutive hourly readings in any one day, relative to atmospheric pressure); and
- A maximum TDG one hour average of one hundred twenty-five percent must not be exceeded during spillage for fish passage.

(g) **Aquatic life pH criteria.** Measurement of pH is expressed as the negative logarithm of the hydrogen ion concentration. Table 200(1)(g) lists the pH levels for each of the aquatic life use categories.

Table 200(1) (g)
Aquatic Life pH Criteria in Fresh Water

Use Category	pH Units
Char	pH shall be within the range of 6.5 to 8.5, with a human-caused variation within the above range of less than 0.2 units.
Salmon and Trout Spawning, Core Rearing, and Migration	Same as above.
Salmon and Trout Spawning, Noncore Rearing, and Migration	pH shall be within the range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.
Salmon and Trout Rearing and Migration Only	Same as above.
Non-anadromous Interior Redband Trout	Same as above.
Indigenous Warm Water Species	Same as above.

(2) **Recreational uses.** The recreational uses are extraordinary primary contact recreation, primary contact recreation, and secondary contact recreation.

(a) **General criteria.** General criteria that apply to fresh water recreational uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (i) Toxic, radioactive, and deleterious materials; and
- (ii) Aesthetic values.

(b) **Water contact recreation bacteria criteria.** Table 200(2)(b) lists the bacteria criteria to protect water contact recreation in fresh waters.

Table 200(2)(b)
Water Contact Recreation Bacteria Criteria in
Fresh Water

Category	Bacteria Indicator
Extraordinary Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 50 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 100 colonies/100 mL.
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 100 colonies /100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 200 colonies /100 mL.
Secondary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 200 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 400 colonies /100 mL.

(i) When averaging bacteria sample data for comparison to the geometric mean criteria, it is preferable to average by season and include five or more data collection events within each period. Averaging of data collected beyond a thirty-day period, or beyond a specific discharge event under investigation, is not permitted when such averaging would skew the data set so as to mask noncompliance periods. The period of averaging should not exceed twelve months, and should have sample collection dates well distributed throughout the reporting period.

(ii) When determining compliance with the bacteria criteria in or around small sensitive areas, such as swimming beaches, it is recommended that multiple samples are taken throughout the area during each visit. Such multiple samples should be arithmetically averaged together (to reduce concerns with low bias when the data is later used in calculating a geometric mean) to reduce sample variability and to create a single representative data point.

(iii) As determined necessary by the department, more stringent bacteria criteria may be established for rivers and streams that cause, or significantly contribute to, the decertification or conditional certification of commercial or recreational shellfish harvest areas, even when the preassigned bacteria criteria for the river or stream are being met.

(iv) Where information suggests that sample results are due primarily to sources other than warm-blooded animals (e.g., wood waste), alternative indicator criteria may be established on a site-specific basis by the department.

(3) **Water supply uses.** The water supply uses are domestic, agricultural, industrial, and stock watering.

General criteria. General criteria that apply to the water supply uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (a) Toxic, radioactive, and deleterious materials; and
- (b) Aesthetic values.

(4) **Miscellaneous uses.** The miscellaneous fresh water uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

General criteria. General criteria that apply to miscellaneous fresh water uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (a) Toxic, radioactive, and deleterious materials; and
- (b) Aesthetic values.

NEW SECTION

WAC 173-201A-210 Marine water designated uses and criteria.

The following uses are designated for protection in marine surface waters of the state of Washington. Use designations for specific water bodies are listed in WAC 173-201A-612.

(1) **Aquatic life uses.** Aquatic life uses are designated using the following general categories. It is required that all indigenous fish and nonfish aquatic species be protected in waters of the state.

(a) **The categories for aquatic life uses are:**

(i) **Extraordinary quality** salmonid and other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(ii) **Excellent quality** salmonid and other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(iii) **Good quality** salmonid migration and rearing; other fish migration, rearing, and

spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(iv) **Fair quality** salmonid and other fish migration.

(b) **General criteria.** General criteria that apply to aquatic life marine water uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

(i) Toxic, radioactive, and deleterious materials; and

(ii) Aesthetic values.

(c) **Aquatic life temperature criteria.** Except where noted, temperature is measured as a 1-day maximum temperature (1-DMax). Table 210(1)(c) lists the temperature criteria for each of the aquatic life use categories.

Table 210(1)(c)
Aquatic Life Temperature Criteria in Marine
Water

Category	Highest 1-DMax
<i>Extraordinary quality</i>	13°C (55.4°F)
<i>Excellent quality</i>	16°C (60.8°F)
<i>Good quality</i>	19°C (66.2°F)
<i>Fair quality</i>	22°C (71.6°F)

(i) When a water body's temperature is warmer than the criteria in Table 210(1)(c) (or within 0.3°C (0.54°F) of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the 7-DADMax temperature of that water body to increase more than 0.3°C (0.54°F).

(ii) When the natural condition of the water is cooler than the criteria in Table 210(1)(c), the allowable rate of warming up to, but not exceeding, the numeric criteria from human actions is restricted as follows:

(A) Incremental temperature increases resulting from individual point source activities must not, at any time, exceed $12/(T-2)$ as measured at the edge of a mixing zone boundary (where "T" represents the background temperature as measured at a point or points unaffected by the discharge and representative of the highest ambient water temperature in the vicinity of the discharge); and

(B) Incremental temperature increases resulting from the combined effect of all nonpoint source activities in the water body must not, at any time, exceed 2.8°C (5.04°F).

(iii) Temperatures are not to exceed the criteria at a probability frequency of more than once every ten years on average.

(iv) Temperature measurements should be taken to represent the dominant aquatic habitat of the monitoring site. This typically means samples should not be taken from shallow stagnant backwater areas, within isolated thermal refuges, at the surface, or at the water's edge.

(v) The department will incorporate the following guidelines on preventing acute lethality and barriers to migration of salmonids into determinations of compliance with the narrative requirements for use protection established in this chapter (e.g., WAC 173-201A-310(1), 173-201A-400(4), and 173-201A-410 (1)(c)). The following site-level considerations do not, however, override the temperature criteria established for waters in subsection (1)(c) of this subsection or WAC 173-201A-612:

(A) Moderately acclimated (16-20°C, or 60.8-68°F) adult and juvenile salmonids will generally be protected from acute lethality by discrete human actions maintaining the 7-DADMax temperature at or below 22°C (71.6°F) and the 1-DMax temperature at or below 23°C (73.4°F).

(B) Lethality to developing fish embryos can be expected to occur at a 1-DMax temperature greater than 17.5°C (63.5°F).

(C) To protect aquatic organisms, discharge plume temperatures must be maintained such that fish could not be entrained (based on plume time of travel) for more than two seconds at temperatures above 33°C (91.4°F) to avoid creating areas that will cause near instantaneous lethality.

(D) Barriers to adult salmonid migration are assumed to exist any time the 1-DMax temperature is greater than 22°C (71.6°F) and the adjacent downstream water temperatures are 3°C (5.4°F) or more cooler.

(vi) Nothing in this chapter shall be interpreted to prohibit the establishment of effluent limitations for the control of the thermal component of any discharge in accordance with 33 U.S.C. 1326 (commonly known as section 316 of the Clean Water Act).

(d) **Aquatic life dissolved oxygen (D.O.) criteria.** Except where noted, D.O. concentrations are measured as a 1-day minimum in milligrams per liter. Table 210(1)(d) lists the D.O. criteria for each of the aquatic life use categories.

Table 210(1)(d)
Aquatic Life Dissolved Oxygen Criteria in
Marine Water

Category	Lowest 1-Day Minimum
<i>Extraordinary quality</i>	7.0 mg/L
<i>Excellent quality</i>	6.0 mg/L
<i>Good quality</i>	5.0 mg/L
<i>Fair quality</i>	4.0 mg/L

(i) When a water body's D.O. is lower than the criteria in Table 210(1)(d) (or within 0.2 mg/L of the criteria) and that condition is due to natural conditions, then human actions considered cumulatively may not cause the D.O. of that water body to decrease more than 0.2 mg/L.

(ii) Concentrations of D.O. are not to fall below the criteria in the table at a probability frequency of more than once every ten years on average.

(iii) D.O. measurements should be taken to represent the dominant aquatic habitat of the monitoring site. This typically means samples should not be taken from shallow stagnant backwater areas, within isolated thermal refuges, at the surface, or at the water's edge.

(e) **Aquatic life turbidity criteria.** Turbidity is measured in "nephelometric turbidity units" or "NTUs." Table 210(1)(e) lists the one-day maximum turbidity allowed as a result of human actions for each of the aquatic life use categories.

Table 210(1) (e)
Aquatic Life Turbidity Criteria in Marine
Water

Category	NTUs
<i>Extraordinary quality</i>	Turbidity must not exceed: <ul style="list-style-type: none"> • 5 NTU over background when the background is 50 NTU or less; or • A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
<i>Excellent quality</i>	Same as above.
<i>Good quality</i>	Turbidity must not exceed: <ul style="list-style-type: none"> • 10 NTU over background when the background is 50 NTU or less; or • A 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
<i>Fair quality</i>	Same as above.

(i) The turbidity criteria established under WAC 173-201A-210 (1)(e) shall be modified, without specific written authorization from the department, to allow a temporary area of mixing during and immediately after necessary in-water construction activities that result in the disturbance of in-place sediments. This temporary area of mixing is subject to the constraints of WAC 173-201A-400 (4) and (6) and can occur only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices to avoid or minimize disturbance of in-place sediments and exceedances of the turbidity criteria. A temporary area of mixing shall be as follows:

(A) For waters up to 10 cfs flow at the time of construction, the point of compliance shall be one hundred feet downstream from the activity causing the turbidity exceedance.

(B) For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be two hundred feet downstream of the activity causing the turbidity exceedance.

(C) For waters above 100 cfs flow at the time of construction, the point of compliance shall be three hundred feet downstream of the activity causing the turbidity exceedance.

(D) For projects working within or along lakes, ponds, wetlands, estuaries, marine waters or other nonflowing waters, the point of compliance shall be at a radius of one hundred fifty feet from the activity causing the turbidity exceedance.

(f) **Aquatic life pH criteria.** Measurement of pH is expressed as the negative logarithm of the hydrogen ion concentration. Table 210(1)(f) lists the pH levels allowed as a result of human actions for each of the aquatic life use categories.

Table 210(1)(f)
Aquatic Life pH Criteria in Marine Water

Use Category	pH Units
<i>Extraordinary quality</i>	pH must be within the range of 7.0 to 8.5 with a human-caused variation within the above range of less than 0.2 units.

<i>Excellent quality</i>	pH must be within the range of 7.0 to 8.5 with a human-caused variation within the above range of less than 0.5 units.
<i>Good quality</i>	Same as above.
<i>Fair quality</i>	pH must be within the range of 6.5 to 9.0 with a human-caused variation within the above range of less than 0.5 units.

(2) **Shellfish harvesting.**

(a) General criteria. General criteria that apply to shellfish harvesting uses for marine water are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (i) Toxic, radioactive, and deleterious materials; and
- (ii) Aesthetic values.

(b) **Shellfish harvesting bacteria criteria.** To protect shellfish harvesting, fecal coliform organism levels must not exceed a geometric mean value of 14 colonies/100 mL, and not have more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 43 colonies/100 mL.

(i) Shellfish growing areas approved for unconditional harvest by the state department of health are fully supporting the shellfish harvest goals of this chapter, even when comparison with the criteria contained in this chapter suggest otherwise.

(ii) When averaging bacteria sample data for comparison to the geometric mean criteria, it is preferable to average by season and include five or more data collection events within each period. Averaging of data collected beyond a thirty-day period, or beyond a specific discharge event under investigation, is not permitted when such averaging would skew the data set so as to mask noncompliance periods. The period of averaging should not exceed twelve months, and should have sample collection dates well distributed throughout the reporting period.

(iii) When determining compliance with the bacteria criteria in or around small sensitive areas, it is recommended that multiple samples are taken throughout the area during each visit. Such multiple samples should be arithmetically averaged together (to reduce concerns with low bias when the data is later used in calculating a geometric mean) to reduce sample variability and to create a single representative data point.

(iv) As determined necessary by the department, more stringent bacteria criteria may be established for waters that cause, or significantly contribute to, the decertification or conditional certification of commercial or recreational shellfish harvest areas, even when the preassigned bacteria criteria for the water is being met.

(v) Where information suggests that sample results are due primarily to sources other than warm-blooded animals (e.g., wood waste), alternative indicator criteria may be established on a site-specific basis by the department.

(3) **Recreational uses.** The recreational uses are primary contact recreation and secondary contact recreation.

(a) **General criteria.** General criteria that apply to water contact uses for marine water are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (i) Toxic, radioactive, and deleterious materials; and
- (ii) Aesthetic values.

(b) **Water contact recreation bacteria criteria.** Table 210 (3)(b) lists the bacteria criteria to protect water contact recreation in marine water.

Table 210(3)(b)
Water Contact Recreation Bacteria Criteria in
Marine Water

Category	Bacteria Indicator
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 14 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 41 colonies/100 mL.
Secondary Contact Recreation	Enterococci organism levels must not exceed a geometric mean value of 70 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 208 colonies/100 mL.

(i) When averaging bacteria sample data for comparison to the geometric mean criteria, it is preferable to average by season and include five or more data collection events within each period. Averaging of data collected beyond a thirty-day period, or beyond a specific discharge event under investigation, is not permitted when such averaging would skew the data set so as to mask noncompliance periods. The period of averaging should not exceed twelve months, and should have sample collection dates well distributed throughout the reporting period.

(ii) When determining compliance with the bacteria criteria in or around small sensitive areas, such as swimming beaches, it is recommended that multiple samples are taken throughout the area during each visit. Such multiple samples should be arithmetically averaged together (to reduce concerns with low bias when the data is later used in calculating a geometric mean) to reduce sample variability and to create a single representative data point.

(iii) As determined necessary by the department, more stringent bacteria criteria may be established for waters that cause, or significantly contribute to, the decertification or conditional certification of commercial or recreational shellfish harvest areas, even when the preassigned bacteria criteria for the water is being met.

(iv) Where information suggests that sample results are due primarily to sources other than warm-blooded animals (e.g., wood waste), alternative indicator criteria may be established on a site-specific basis by the department.

(4) **Miscellaneous uses.** The miscellaneous marine water uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

General criteria. General criteria that apply in miscellaneous marine water uses are described in WAC 173-201A-260 (2)(a) and (b), and are for:

- (a) Toxic, radioactive, and deleterious materials; and
- (b) Aesthetic values.

NEW SECTION

WAC 173-201A-230 Establishing lake nutrient criteria.

(1) The following table shall be used to aid in establishing nutrient criteria:

(Table 230(1)) The ecoregional and trophic-state action values for establishing nutrient criteria:

Coast Range, Puget Lowlands, and Northern Rockies Ecoregions:				
Trophic State	If Ambient TP (µg/l) Range of Lake is:		Then criteria should be set at:	
Ultra-oligotrophic	0-4		4 or less	
Oligotrophic	>4-10		10 or less	
Lower mesotrophic	>10-20		20 or less	
	<u>Action value</u>			
	>20		lake specific study may be initiated.	
Cascades Ecoregion:				
Trophic State	If Ambient TP (µg/l) Range of Lake is:		Then criteria should be set at:	
Ultra-oligotrophic	0-4		4 or less	
Oligotrophic	>4-10		10 or less	
	<u>Action value</u>			
	>10		lake specific study may be initiated.	
Columbia Basin Ecoregion:				
Trophic State	If Ambient TP (µg/l) Range of Lake is:		Then criteria should be set at:	
Ultra-oligotrophic	0-4		4 or less	
Oligotrophic	>4-10		10 or less	
Lower mesotrophic	>10-20		20 or less	
Upper mesotrophic	>20-35		35 or less	
	<u>Action value</u>			
	>35		lake specific study may be initiated.	

Lakes in the Willamette, East Cascade Foothills, or Blue Mountain ecoregions do not have recommended values and need to have lake-specific studies in order to receive criteria as described in subsection (3) of this section.

(2) The following actions are recommended if ambient monitoring of a lake shows the epilimnetic total phosphorus concentration, as shown in Table 1 of this section, is below the action value for an ecoregion:

(a) Determine trophic status from existing or newly gathered data. The recommended minimum sampling to determine trophic status is calculated as the mean of four or more samples collected from the epilimnion between June through September in one or more consecutive years. Sampling must be spread throughout the season.

(b) Propose criteria at or below the upper limit of the trophic state; or

(c) Conduct lake-specific study to determine and propose to adopt appropriate criteria as described in (c) of this subsection.

(3) The following actions are recommended if ambient monitoring of a lake shows total phosphorus to exceed the action value for an ecoregion shown in Table 1 of this section or where recommended ecoregional action values do not exist:

(a) Conduct a lake-specific study to evaluate the characteristic uses of the lake. A lake-specific study may vary depending on the source or threat of impairment. Phytoplankton blooms, toxic phytoplankton, or excessive aquatic plants, are examples of various sources of impairment. The following are examples of quantitative measures that a study may describe: Total phosphorus, total nitrogen, chlorophyll-a, dissolved oxygen in the hypolimnion if thermally stratified, pH, hardness, or other measures of existing conditions and potential changes in any one of these parameters.

(b) Determine appropriate total phosphorus concentrations or other nutrient criteria to protect characteristic lake uses. If the existing total phosphorus concentration is protective of characteristic lake uses, then set criteria at existing total phosphorus concentration. If the existing total phosphorus concentration is not protective of the existing characteristic lake uses, then set criteria at a protective concentration. Proposals to adopt appropriate total phosphorus criteria to protect characteristic uses must be developed by considering technical information and stakeholder input as part of a public involvement process equivalent to the Administrative Procedure Act (chapter 34.05 RCW).

(c) Determine if the proposed total phosphorus criteria necessary to protect characteristic uses is achievable. If the recommended criterion is not achievable and if the characteristic use the criterion is intended to protect is not an existing use, then a higher criterion may be proposed in conformance with 40 CFR part 131.10.

(4) The department will consider proposed lake-specific nutrient criteria during any water quality standards rule making that follows development of a proposal. Adoption by rule formally establishes the criteria for that lake.

(5) Prioritization and investigation of lakes by the department will be initiated by listing problem lakes in a watershed needs assessment, and scheduled as part of the water quality program's watershed approach to pollution control. This prioritization will apply to lakes identified as warranting a criteria based on the results of a lake-specific study, to lakes warranting a lake-specific study for establishing criteria, and to lakes requiring restoration and pollution control measures due to exceedance of an established criterion. The adoption of nutrient criteria are generally not intended to apply to lakes or ponds with a surface area smaller than five acres; or to ponds wholly contained on private property owned and surrounded by a single landowner; and nutrients do not drain or leach from these lakes or private ponds to the detriment of other property owners or other water bodies; and do not impact designated uses in the lake. However, if the landowner proposes criteria the department may consider adoption.

(6) The department may not need to set a lake-specific criteria or further investigate a lake if existing water quality conditions are naturally poorer (higher TP) than the action value and uses have not been lost or degraded, per WAC 173-201A-260(1).

AMENDATORY SECTION (Amending Order 94-19, filed 11/18/97, effective 12/19/97)

WAC 173-201A-~~240~~ 040 Toxic substances.

(1) Toxic substances shall not be introduced above natural background levels in waters of the state which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health, as determined by the department.

(2) The department shall employ or require chemical testing, acute and chronic toxicity

testing, and biological assessments, as appropriate, to evaluate compliance with subsection (1) of this section and to ensure that aquatic communities and the existing and characteristic beneficial uses of waters are being fully protected.

(3) The following criteria, found in Table 240(3), shall be applied to all surface waters of the state of Washington for the protection of aquatic life. The department may revise the following criteria on a statewide or water body-specific basis as needed to protect aquatic life occurring in waters of the state and to increase the technical accuracy of the criteria being applied. The department shall formally adopt any appropriate revised criteria as part of this chapter in accordance with the provisions established in chapter 34.05 RCW, the Administrative Procedure Act. The department shall ensure there are early opportunities for public review and comment on proposals to develop revised criteria. Values are µg/L for all substances except Ammonia and Chloride which are mg/L:

Table 240(3)
Toxics Substances Criteria

Substance	Freshwater		Marine Water	
	Acute	Chronic	Acute	Chronic
Aldrin/Dieldrin <u>e</u>	2.5a	0.0019b	0.71a	0.0019b
Ammonia (un-ionized NH ₃) hh	f,c	g,d	0.233h,c	0.035h,d
Arsenic dd	360.0c	190.0d	69.0c,ll	36.0d,cc,ll
Cadmium dd	i,c	j,d	42.0c	9.3d
Chlordane	2.4a	0.0043b	0.09a	0.004b
Chloride (Dissolved) k	860.0h,c	230.0h,d	-	-
Chlorine (Total Residual)	19.0c	11.0d	13.0c	7.5d
Chlorpyrifos	0.083c	0.041d	0.011c	0.0056d
Chromium (Hex) dd	15.0c,l,ii	10.0d,jj	1,100.0c,l, ll	50.0d,ll
Chromium (Tri) gg	m,c	n,d	-	-
Copper dd	o,c	p,d	4.8c,ll	3.1d,ll
Cyanide ee	22.0c	5.2d	1.0c,mm	((-)d,mm
DDT (and metabolites)	1.1a	0.001b	0.13a	0.001b
Dieldrin/Aldrin e	2.5a	0.0019b	0.71a	0.0019b
Endosulfan	0.22a	0.056b	0.034a	0.0087b
Endrin	0.18a	0.0023b	0.037a	0.0023b
Heptachlor	0.52a	0.0038b	0.053a	0.0036b
Hexachlorocyclohexane (Lindane)	<u>2.0a</u>	<u>0.08b</u>	<u>0.16a</u>	=

((Lindane)	2.0a	0.08b	0.16a	-))
Lead dd	q,c	r,d	210.0c,ll	8.1d,ll
Mercury s	2.1c,kk,dd	0.012d,ff	1.8c,ll,dd	0.025d,ff
Nickel dd	t,c	u,d	74.0c,ll	8.2d,ll
Parathion	0.065c	0.013d	-	-
Pentachlorophenol (PCP)	w,c	v,d	13.0c	7.9d
Polychlorinated Biphenyls (PCBs)	2.0b	0.014b	10.0b	0.030b
Selenium	20.0c,ff	5.0d,ff	290c,ll,dd	71.0d, x,ll,dd
Silver dd	y,a	-	1.9a,ll	-
Toxaphene	0.73c,z	0.0002d	0.21c,z	0.0002d
Zinc dd	aa,c	bb,d	90.0c,ll	81.0d,ll

Notes to Table 240(3):

- An instantaneous concentration not to be exceeded at any time.
- A 24-hour average not to be exceeded.
- A 1-hour average concentration not to be exceeded more than once every three years on the average.
- A 4-day average concentration not to be exceeded more than once every three years on the average.
- Aldrin is metabolically converted to Dieldrin. Therefore, the sum of the Aldrin and Dieldrin concentrations are compared with the Dieldrin criteria.
- Shall not exceed the numerical value given by:

$$\begin{aligned}
 & \text{where:} \quad FT = \frac{((0.52 \div (FT)(FPH)(2))}{10^{[0.03(20 - TCAP)]}}; TCAP, T, \\
 & \quad \quad \quad FT = \frac{30}{10^{[0.03(20 - T)]}}; 0, T, TCAP \\
 & \quad \quad \quad FPH = 1; 8, pH, 9 \\
 & \quad \quad \quad FPH = \frac{-(1 + 10^{(7.4 - pH)}) \div 1.25}{6.5, pH, 8.0} \\
 & \quad \quad \quad TCAP = 20^{\circ}\text{C}; \text{Salmonids present;} \\
 & \quad \quad \quad TCAP = 25^{\circ}\text{C}; \text{Salmonids absent.))}
 \end{aligned}$$

For salmonids present: 0.275 .+ 39.0

For salmonids absent: $\frac{1. + 10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}{10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}$.+ $\frac{1. + 10^{\text{pH} - 7.205}}{10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}$

$\frac{1. + 10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}{10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}$ $\frac{1. + 10^{\text{pH} - 7.205}}{10^{\frac{7.204 - \text{pH}}{7.204 - 7.205}}}$

- g. Shall not exceed the numerical ((value given by)) concentration calculated as follows:
Unionized ammonia concentration for waters where salmonid habitat is an existing or designated use:

$$0.80 \div (\text{FT})(\text{FPH})(\text{RATIO})$$

where: RATI .= 13.5 ; 7.7 pH 9

O

RATI .=

O

(20.25 x 10^(7.7-pH)) ÷ (1. + 10^(7.4-pH)) ; 6.5 pH 7.7

((where FT and FPH are as shown in (f) above except:

e:

TCAP .= 15°C; Salmonids present.

TCAP .= 20°C; Salmonids absent.))

FT .= 1.4; 15 T 30

FT .= 10^[0.03(20-T)]; 0 T 15

FPH .= 1; 8 pH 9

FPH .= (1. + 10^(7.4-pH)) ÷ 1.25; 6 pH 8.0

Total ammonia concentrations for waters where salmonid habitat is not an existing or designated use and other fish early life stages are absent:

Chronic .= 0.0557 .+ 2.487 (1.45 x 10^{0.028(25-A)})
criterion

$\frac{1. + 10^{\frac{7.688 - \text{pH}}{7.688 - 7.688}}}{10^{\frac{7.688 - \text{pH}}{7.688 - 7.688}}}$ $\frac{1. + 10^{\text{pH} - 7.688}}{10^{\frac{7.688 - \text{pH}}{7.688 - 7.688}}}$

where: A .= the greater of either T (temperature in degrees Celsius) or 7.

Applied as a thirty-day average concentration of total ammonia nitrogen (in mg N/L) not to be exceeded more than once every three years on average. The highest four-day average within the thirty-day period should not exceed 2.5 times the chronic criterion.

Total ammonia concentration for waters where salmonid habitat is not an existing or

designated use and other fish early life stages are present:

$$\frac{\text{Chronic criterion}}{B} = \frac{0.0557}{1 + 10^{\frac{1}{7.688 - \text{pH}}}} \quad (B)$$

$$\text{where: } B = \frac{1}{10^{\frac{1}{7.688 - \text{pH}}}} \quad \text{the lower of either } 2.85, \text{ or } 1.45 \times 10^{0.028 \times (25 - T)} \quad T = \text{temperature in degrees Celsius.}$$

Applied as a thirty-day average concentration of total ammonia nitrogen (in mg N/L) not to be exceeded more than once every three years on the average. The highest four-day average within the thirty-day period should not exceed 2.5 times the chronic criterion.

- h. Measured in milligrams per liter rather than micrograms per liter.
- i. $\leq (0.944)(e^{(1.128[(\text{pH}) \ln(\text{hardness})] - 3.828)})$ at hardness = 100. Conversion factor (CF) of 0.944 is hardness dependent. CF is calculated for other hardnesses as follows: $\text{CF} = 1.136672 - [((\text{pH}) \ln \text{hardness})(0.041838)]$.
- j. $\leq (0.909)(e^{(0.7852[(\text{pH}) \ln(\text{hardness})] - 3.490)})$ at hardness = 100. Conversion factor (CF) of 0.909 is hardness dependent. CF is calculated for other hardnesses as follows: $\text{CF} = 1.101672 - [((\text{pH}) \ln \text{hardness})(0.041838)]$.
- k. Criterion based on dissolved chloride in association with sodium. This criterion probably will not be adequately protective when the chloride is associated with potassium, calcium, or magnesium, rather than sodium.
- l. Salinity dependent effects. At low salinity the 1-hour average may not be sufficiently protective.
- m. $\leq (0.316)e^{(0.8190[(\text{pH}) \ln(\text{hardness})] + 3.688)}$
- n. $\leq (0.860)e^{(0.8190[(\text{pH}) \ln(\text{hardness})] + 1.561)}$
- o. $\leq (0.960)(e^{(0.9422[(\text{pH}) \ln(\text{hardness})] - 1.464)})$
- p. $\leq (0.960)(e^{(0.8545[(\text{pH}) \ln(\text{hardness})] - 1.465)})$
- q. $\leq (0.791)(e^{(1.273[(\text{pH}) \ln(\text{hardness})] - 1.460)})$ at hardness = 100. Conversion factor (CF) of 0.791 is hardness dependent. CF is calculated for other hardnesses as follows: $\text{CF} = 1.46203 - [((\text{pH}) \ln \text{hardness})(0.145712)]$.
- r. $\leq (0.791)(e^{(1.273[(\text{pH}) \ln(\text{hardness})] - 4.705)})$ at hardness = 100. Conversion factor (CF) of 0.791 is hardness dependent. CF is calculated for other hardnesses as follows: $\text{CF} = 1.46203 - [((\text{pH}) \ln \text{hardness})(0.145712)]$.
- s. If the four-day average chronic concentration is exceeded more than once in a three-year period, the edible portion of the consumed species should be analyzed. Said edible tissue

concentrations shall not be allowed to exceed 1.0 mg/kg of methylmercury.

t. $\leq (0.998)(e^{(0.8460[\ln(\text{hardness})] + 3.3612)})$

u. $\leq (0.997)(e^{(0.8460[\ln(\text{hardness})] + 1.1645)})$

v. $\leq e^{[1.005(\text{pH}) - 5.290]}$

w. $\leq e^{[1.005(\text{pH}) - 4.830]}$

x. The status of the fish community should be monitored whenever the concentration of selenium exceeds 5.0 ug/((+)) l in salt water.

y. $\leq (0.85)(e^{(1.72[\ln(\text{hardness})] - 6.52)})$

z. Channel Catfish may be more acutely sensitive.

aa. $\leq (0.978)(e^{(0.8473[\ln(\text{hardness})] + 0.8604)})$

bb. $\leq (0.986)(e^{(0.8473[\ln(\text{hardness})] + 0.7614)})$

cc. Nonlethal effects (growth, C-14 uptake, and chlorophyll production) to diatoms (*Thalassiosira aestivalis* and *Skeletonema costatum*) which are common to Washington's waters have been noted at levels below the established criteria. The importance of these effects to the diatom populations and the aquatic system is sufficiently in question to persuade the state to adopt the USEPA National Criteria value (36 µg/L) as the state threshold criteria, however, wherever practical the ambient concentrations should not be allowed to exceed a chronic marine concentration of 21 µg/L.

dd. These ambient criteria in the table are for the dissolved fraction. The cyanide criteria are based on the weak acid dissociable method. The metals criteria may not be used to calculate total recoverable effluent limits unless the seasonal partitioning of the dissolved to total metals in the ambient water are known. When this information is absent, these metals criteria shall be applied as total recoverable values, determined by back-calculation, using the conversion factors incorporated in the criterion equations. Metals criteria may be adjusted on a site-specific basis when data are made available to the department clearly demonstrating the effective use of the water effects ratio approach established by USEPA, as generally guided by the procedures in USEPA Water Quality Standards Handbook, December 1983, as supplemented or replaced by USEPA or ecology. Information which is used to develop effluent limits based on applying metals partitioning studies or the water effects ratio approach shall be identified in the permit fact sheet developed pursuant to WAC 173-220-060 or 173-226-110, as appropriate, and shall be made available for the public comment period required pursuant to WAC 173-220-050 or 173-226-130(3), as appropriate. Ecology has developed supplemental guidance for conducting water effect ratio studies.

ee. The criteria for cyanide is based on the weak ~~((and))~~ acid dissociable method in the 17th Ed. Standard Methods for the Examination of Water and Wastewater, 4500-CN I, and as

revised (see footnote dd, above).

- ff. These criteria are based on the total-recoverable fraction of the metal.
- gg. Where methods to measure trivalent chromium are unavailable, these criteria are to be represented by total-recoverable chromium.
- hh. The listed fresh water criteria are based on unionized or total ammonia concentrations, while those for marine water are based on total ammonia concentrations. Tables for the conversion of total ammonia to un-ionized ammonia for freshwater can be found in the USEPA's Quality Criteria for Water, 1986. Criteria concentrations based on total ammonia for marine water can be found in USEPA Ambient Water Quality Criteria for Ammonia (Saltwater)-1989, EPA440/5-88-004, April 1989.
- ii. The conversion factor used to calculate the dissolved metal concentration ((is)) was 0.982.
- jj. The conversion factor used to calculate the dissolved metal concentration ((is)) was 0.962.
- kk. The conversion factor used to calculate the dissolved metal concentration ((is)) was 0.85.
- ll. Marine conversion factors (CF) which were used for calculating dissolved metals concentrations are given below. Conversion factors are applicable to both acute and chronic criteria for all metals except mercury. The CF for mercury ((is-applicable)) was applied to the acute criterion only and is not applicable to the chronic criterion. Conversion factors are already incorporated into the criteria in the table. Dissolved criterion.= criterion x CF

Metal	CF
Arsenic	1.000
Cadmium	0.994
Chromium (VI)	0.993
Copper	0.83
Lead	0.951
Mercury	0.85
Nickel	0.990
Selenium	0.998
Silver	0.85
Zinc	0.946

- mm. The cyanide criteria are: ~~((9.4))~~ 2.8µg/l chronic and ~~((2.8))~~ 9.1µg/l acute and are applicable only to waters which are east of a line from Point Roberts to Lawrence Point, to Green Point to Deception Pass; and south from Deception Pass and of a line from Partridge Point to Point Wilson. The chronic criterion applicable to the remainder of the marine

waters is 1 µg/L.

(4) USEPA Quality Criteria for Water, 1986, as revised, shall be used in the use and interpretation of the values listed in subsection (3) of this section.

(5) Concentrations of toxic, and other substances with toxic propensities not listed in subsection (3) of this section shall be determined in consideration of USEPA Quality Criteria for Water, 1986, and as revised, and other relevant information as appropriate. Human health-based water quality criteria used by the state are contained in 40 CFR 131.36 (known as the National Toxics Rule).

(6) Risk-based criteria for carcinogenic substances shall be selected such that the upper-bound excess cancer risk is less than or equal to one in one million.

WAC 173-201A-~~250~~ 050 Radioactive substances.

(1) Deleterious concentrations of radioactive materials for all classes shall be as determined by the lowest practicable concentration attainable and in no case shall exceed:

(a) 1/12.5 of the values listed in WAC 246-221-290 (Column 2, Table II, effluent concentrations, rules and regulations for radiation protection); or

(b) USEPA Drinking Water Regulations for radionuclides, as published in the Federal Register of July 9, 1976, or subsequent revisions thereto.

(2) Nothing in this chapter shall be interpreted to be applicable to those aspects of governmental regulation of radioactive waters which have been preempted from state regulation by the Atomic Energy Act of 1954, as amended, as interpreted by the United States Supreme Court in the cases of *Northern States Power Co. v. Minnesota* 405 U.S. 1035 (1972) and *Train v. Colorado Public Interest Research Group*, 426 U.S. 1 (1976).

[Statutory Authority: Chapter 90.48 RCW and 40 CFR 131. 97-23-064 (Order 94-19), § 173-201A-050, filed 11/18/97, effective 12/19/97. Statutory Authority: Chapter 90.48 RCW. 92-24-037 (Order 92-29), § 173-201A-050, filed 11/25/92, effective 12/26/92.]

NEW SECTION

WAC 173-201A-260 Natural conditions and other water quality criteria and applications.

(1) Natural and irreversible human conditions.

(a) It is recognized that portions of many water bodies cannot meet the assigned criteria due to the natural conditions of the water body. When a water body does not meet its assigned criteria due to natural climatic or landscape attributes, the natural conditions constitute the water quality criteria.

(b) When a water body does not meet its assigned criteria due to human structural changes that cannot be effectively remedied (as determined consistent with the federal regulations at 40 CFR 131.10), then alternative estimates of the attainable water quality conditions, plus any further allowances for human effects specified in this chapter for when natural conditions exceed the criteria, may be used to establish an alternative criteria for the water body (see WAC 173-201A-440).

(2) **Toxics and aesthetics criteria.** The following narrative criteria apply to all existing and designated uses for fresh and marine water:

(a) Toxic, radioactive, or deleterious material concentrations must be below those which have the potential, either singularly or cumulatively, to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon those waters, or adversely affect public health (see WAC 173-201A-240, toxic substances, and 173-201A-250,

radioactive substances).

(b) Aesthetic values must not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste (see WAC 173-201A-230 for guidance on establishing lake nutrient standards to protect aesthetics).

(3) **Procedures for applying water quality criteria.** In applying the appropriate water quality criteria for a water, the department will use the following procedure:

(a) The department will establish water quality requirements for water bodies, in addition to those specifically listed in this chapter, on a case-specific basis where determined necessary to provide full support for designated and existing uses.

(b) Upstream actions must be conducted in manners that meet downstream water body criteria. Except where and to the extent described otherwise in this chapter, the criteria associated with the most upstream uses designated for a water body are to be applied to headwaters to protect nonfish aquatic species and the designated downstream uses.

(c) Where multiple criteria for the same water quality parameter are assigned to a water body to protect different uses, the most stringent criterion for each parameter is to be applied.

(d) At the boundary between water bodies protected for different uses, the more stringent criteria apply.

(e) In brackish waters of estuaries, where different criteria for the same use occurs for fresh and marine waters, the decision to use the fresh water or the marine water criteria must be selected and applied on the basis of vertically averaged daily maximum salinity, referred to below as "salinity."

(i) The fresh water criteria must be applied at any point where ninety-five percent of the salinity values are less than or equal to one part per thousand, except that the fresh water criteria for bacteria applies when the salinity is less than ten parts per thousand; and

(ii) The marine water criteria must apply at all other locations where the salinity values are greater than one part per thousand, except that the marine criteria for bacteria applies when the salinity is ten parts per thousand or greater.

(f) Numeric criteria established in this chapter are not intended for application to human created waters managed primarily for the removal or containment of pollution. This special provision also includes private farm ponds created from upland sites that did not incorporate natural water bodies.

(i) Waters covered under this provision must be managed so that:

(A) They do not create unreasonable risks to human health or uses of the water; and

(B) Discharges from these systems meet down gradient surface and ground water quality standards.

(ii) This provision does not apply to waterways designed and managed primarily to convey or transport water from one location to another, rather than to remove pollution en route.

(g) When applying the numeric criteria established in this chapter, the department will give consideration to the precision and accuracy of the sampling and analytical methods used, as well as the existing conditions at the time.

(h) The analytical testing methods for these numeric criteria must be in accordance with the *"Guidelines Establishing Test Procedures for the Analysis of Pollutants"* (40 CFR Part 136) or superseding methods published. The department may also approve other methods following consultation with adjacent states and with the approval of the USEPA.

(i) The primary means for protecting water quality in wetlands is through implementing the antidegradation procedures described in Part III of this chapter.

(i) In addition to designated uses, wetlands may have existing beneficial uses that are to be protected that include ground water exchange, shoreline stabilization, and storm water attenuation.

(ii) Water quality in wetlands is maintained and protected by maintaining the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses.

(iii) Wetlands must be delineated using the *Washington State Wetlands Identification and Delineation Manual*, in accordance with WAC 173-22-035.

PART III - ANTIDEGRADATION

NEW SECTION

WAC 173-201A-300 Description.

(1) The antidegradation policy is guided by chapter 90.48 RCW, Water Pollution Control Act, chapter 90.54 RCW, Water Resources Act of 1971, and 40 CFR 131.12.

(2) The purpose of the antidegradation policy is to:

(a) Restore and maintain the highest possible quality of the surface waters of Washington;
(b) Describe situations under which water quality may be lowered from its current condition;

(c) Apply to human activities that are likely to have an impact on the water quality of a surface water;

(d) Ensure that all human activities that are likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART); and

(e) Apply three levels of protection for surface waters of the state, as generally described below:

(i) Tier I is used to ensure existing and designated uses are maintained and protected and applies to all waters and all sources of pollution.

(ii) Tier II is used to ensure that waters of a higher quality than the criteria assigned in this chapter are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities.

(iii) Tier III is used to prevent the degradation of waters formally listed in this chapter as "outstanding resource waters," and applies to all sources of pollution.

(3) **Habitat restoration.** Both temporary harm and permanent loss of existing uses may be allowed by the department where determined necessary to secure greater ecological benefits through major habitat restoration projects designed to return the natural physical structure and associated uses to a water body where the structure has been altered through human action.

NEW SECTION

WAC 173-201A-310 Tier I--Protection and maintenance of existing and designated uses.

(1) Existing and designated uses must be maintained and protected. No degradation may be allowed that would interfere with, or become injurious to, existing or designated uses, except as provided for in this chapter.

(2) For waters that do not meet assigned criteria, or protect existing or designated uses, the department will take appropriate and definitive steps to bring the water quality back into compliance with the water quality standards.

(3) Whenever the natural conditions of a water body are of a lower quality than the assigned criteria, the natural conditions constitute the water quality criteria. Where water quality criteria are not met because of natural conditions, human actions are not allowed to further lower the water quality, except where explicitly allowed in this chapter.

NEW SECTION

WAC 173-201A-320 Tier II--Protection of waters of higher quality than the standards.

(1) Whenever a water quality constituent is of a higher quality than a criterion designated for that water under this chapter, new or expanded actions within the categories identified in subsection (2) of this section that are expected to cause a measurable change in the quality of the water (see subsection (3) of this section) may not be allowed unless the department determines that the lowering of water quality is necessary and in the overriding public interest (see subsection (4) of this section).

(2) A Tier II review will only be conducted for new or expanded actions conducted under the following authorizations. Public involvement with the Tier II review will be conducted in accordance with the public involvement processes associated with these actions.

- (a) National Pollutant Discharge Elimination System (NPDES) waste discharge permits;
- (b) State waste discharge permits to surface waters;
- (c) Federal Clean Water Act Section 401 water quality certifications; and
- (d) Other water pollution control programs authorized, implemented, or administered by the department.

(3) **Definition of measurable change.** To determine that a lowering of water quality is necessary and in the overriding public interest, an analysis must be conducted for new or expanded actions when the resulting action has the potential to cause a measurable change in the physical, chemical, or biological quality of a water body. Measurable changes will be determined based on an estimated change in water quality at a point outside the source area, after allowing for mixing consistent with WAC 173-201A-400(7). In the context of this regulation, a measurable change includes a:

- (a) Temperature increase of 0.3°C or greater;
- (b) Dissolved oxygen decrease of 0.2 mg/L or greater;
- (c) Bacteria level increase of 2 cfu/100 mL or greater;
- (d) pH change of 0.1 units or greater;
- (e) Turbidity increase of 0.5 NTU or greater; or
- (f) Any detectable increase in the concentration of a toxic or radioactive substance.

(4) **Necessary and overriding public interest determinations.** Once an activity has been determined to cause a measurable lowering in water quality, then an analysis must be conducted to determine if the lowering of water quality is necessary and in the overriding public interest. Information to conduct the analysis must be provided by the applicant seeking the authorization, or by the department in developing a general permit or pollution control program, and must include:

(a) A statement of the benefits and costs of the social, economic, and environmental effects associated with the lowering of water quality. This information will be used by the department to determine if the lowering of water quality is in the overriding public interest. Examples of information that can assist in this determination include:

- (i) Economic benefits such as creating or expanding employment, increasing median family income, or increasing the community tax base;
- (ii) Providing or contributing to necessary social services;
- (iii) The use and demonstration of innovative pollution control and management approaches that would allow a significant improvement in AKART for a particular industry or category of action;
- (iv) The prevention or remediation of environmental or public health threats;
- (v) The societal and economic benefits of better health protection;
- (vi) The preservation of assimilative capacity for future industry and development; and
- (vii) The benefits associated with high water quality for uses such as fishing, recreation, and tourism.

- (b) Information that identifies and selects the best combination of site, structural, and

managerial approaches that can be feasibly implemented to prevent or minimize the lowering of water quality. This information will be used by the department to determine if the lowering of water quality is necessary. Examples that may be considered as alternatives include:

- (i) Pollution prevention measures (such as changes in plant processes, source reduction, and substitution with less toxic substances);
- (ii) Recycle/reuse of waste by-products or production materials and fluids;
- (iii) Application of water conservation methods;
- (iv) Alternative or enhanced treatment technology;
- (v) Improved operation and maintenance of existing treatment systems;
- (vi) Seasonal or controlled discharge options to avoid critical conditions of water quality;
- (vii) Establishing buffer areas with effective limits on activities;
- (viii) Land application or infiltration to capture pollutants and reduce surface runoff, on-site treatment, or alternative discharge locations;
- (ix) Water quality offsets as described in WAC 173-201A-450.

(5) The department retains the discretion to require that the applicant examine specific alternatives, or that additional information be provided to conduct the analysis.

(6) General permit and water pollution control programs are developed for a category of dischargers that have similar processes and pollutants. New or reissued general permits or other water pollution control programs authorized, implemented, or administered by the department will undergo an analysis under Tier II at the time the department develops and approves the general permit or program.

(a) Individual activities covered under these general permits or programs will not require a Tier II analysis.

(b) The department will describe in writing how the general permit or control program meets the antidegradation requirements of this section.

(c) The department recognizes that many water quality protection programs and their associated control technologies are in a continual state of improvement and development. As a result, information regarding the existence, effectiveness, or costs of control practices for reducing pollution and meeting the water quality standards may be incomplete. In these instances, the antidegradation requirements of this section can be considered met for general permits and programs that have a formal process to select, develop, adopt, and refine control practices for protecting water quality and meeting the intent of this section. This adaptive process must:

(i) Ensure that information is developed and used expeditiously to revise permit or program requirements;

(ii) Review and refine management and control programs in cycles not to exceed five years or the period of permit reissuance; and

(iii) Include a plan that describes how information will be obtained and used to ensure full compliance with this chapter. The plan must be developed and documented in advance of permit or program approval under this section.

(7) All authorizations under this section must still comply with the provisions of Tier I (WAC 173-201A-310).

NEW SECTION

WAC 173-201A-330 Tier III--Protection of outstanding resource waters.

Where a high quality water is designated as an outstanding resource water, the water quality and uses of those waters must be maintained and protected. As part of the public process, a qualifying water body may be designated as Tier III(A) which prohibits any and all future degradation, or Tier III(B) which allows for de minimis (below measurable amounts) degradation from well-controlled activities.

(1) To be eligible for designation as an outstanding resource water in Washington, one or more of the following must apply:

(a) The water is in a relatively pristine condition (largely absent human sources of degradation) or possesses exceptional water quality, and also occurs in federal and state parks, monuments, preserves, wildlife refuges, wilderness areas, marine sanctuaries, estuarine research reserves, or wild and scenic rivers;

(b) The water has unique aquatic habitat types (for example, peat bogs) that by conventional water quality parameters (such as dissolved oxygen, temperature, or sediment) are not considered high quality, but that are unique and regionally rare examples of their kind;

(c) The water has both high water quality and regionally unique recreational value;

(d) The water is of exceptional statewide ecological significance; or

(e) The water has cold water thermal refuges critical to the long-term protection of aquatic species. For this type of outstanding resource water, the nondegradation protection would apply only to temperature and dissolved oxygen.

(2) Any water or portion thereof that meets one or more of the conditions described in subsection (1) of this section may be designated for protection as an outstanding resource water. A request for designation may be made by the department or through public nominations that are submitted to the department in writing and that include sufficient information to show how the water body meets the appropriate conditions identified in this section.

(3) After receiving a request for outstanding resource water designation, the department will:

(a) Respond within sixty days of receipt with a decision on whether the submitted information demonstrates that the water body meets the eligibility requirements for an outstanding resource water. If the submitted information demonstrates that the water body meets the eligibility requirements, the department will schedule a review of the nominated water for designation as an outstanding resource water. The review will include a public process and consultation with recognized tribes in the geographic vicinity of the water.

(b) In determining whether or not to designate an outstanding resource water, the department will consider factors relating to the difficulty of maintaining the current quality of the water body. Outstanding resource waters should not be designated where substantial and imminent social or economic impact to the local community will occur, unless local public support is overwhelmingly in favor of the designation. The department will carefully weigh the level of support from the public and affected governments in assessing whether or not to designate the water as an outstanding resource water.

(c) After considering public comments and weighing public support for the proposal, the department will make a final determination on whether a nominated water body should be adopted into this chapter as an outstanding resource water.

(4) A designated outstanding resource water will be maintained and protected from all degradation, except for the following situations:

(a) Temporary actions that are necessary to protect the public interest as approved by the department.

(b) Treatment works bypasses for sewage, waste, and stormwater are allowed where such a bypass is unavoidable to prevent the loss of life, personal injury, or severe property damage, and

no feasible alternatives to the bypass exist.

(c) Response actions taken in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), as amended, or similar federal or state authorities, to alleviate a release into the environment of substances which may pose an imminent and substantial danger to public health or welfare.

(d) The sources of degradation are from atmospheric deposition.

(5) Outstanding resources waters can be designated for either Tier III(A) or Tier III(B) protection.

(a) Tier III(A) is the highest level of protection and allows no further degradation after the waters have been formally designated Tier III(A) under this chapter.

(b) Tier III(B) is the second highest level of protection for outstanding resource waters and conditionally allows minor degradation to occur due to highly controlled actions. The requirements for Tier III(B) are as follows:

(i) To meet the goal for maintaining and protecting the quality of Tier III(B) waters, sources of pollution, considered individually and cumulatively, are not to cause measurable degradation of the water body.

(ii) Regardless of the quality of the water body, all new or expanded point sources of pollution in Tier III(B) waters must use applicable advanced waste treatment and control techniques that reasonably represent the state of the art and must minimize the degradation of water quality to nonmeasurable levels where total elimination is not feasible. Nonpoint sources must use all applicable structural and nonstructural BMPs with the goal of reducing the degradation of water quality to nonmeasurable levels where total elimination is not feasible.

PART IV - TOOLS FOR APPLICATION OF CRITERIA AND USES

AMENDATORY SECTION (Amending Order 92-29, filed 11/25/92, effective 12/26/92)

WAC 173-201A-~~400~~ 400 Mixing zones.

(1) The allowable size and location of a mixing zone and the associated effluent limits shall be established in discharge permits, general permits, or orders, as appropriate.

(2) A discharger shall be required to fully apply AKART prior to being authorized a mixing zone.

(3) Mixing zone determinations shall consider critical discharge conditions.

(4) No mixing zone shall be granted unless the supporting information clearly indicates the mixing zone would not have a reasonable potential to cause a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health as determined by the department.

(5) Water quality criteria shall not be violated outside of the boundary of a mixing zone as a result of the discharge for which the mixing zone was authorized.

(6) The size of a mixing zone and the concentrations of pollutants present shall be minimized.

(7) The maximum size of a mixing zone shall comply with the following:

(a) In rivers and streams, mixing zones, singularly or in combination with other mixing zones, shall comply with the most restrictive combination of the following (this size limitation may be applied to estuaries having flow characteristics that resemble rivers):

(i) Not extend in a downstream direction for a distance from the discharge port(s) greater than three hundred feet plus the depth of water over the discharge port(s), or extend upstream for a distance of over one hundred feet;

(ii) Not utilize greater than twenty-five percent of the flow; and

(iii) Not occupy greater than twenty-five percent of the width of the water body.

(b) In estuaries, mixing zones, singularly or in combination with other mixing zones, shall:

(i) Not extend in any horizontal direction from the discharge port(s) for a distance greater than two hundred feet plus the depth of water over the discharge port(s) as measured during mean lower low water; and

(ii) Not occupy greater than twenty-five percent of the width of the water body as measured during mean lower low water. For the purpose of this section, areas to the east of a line from Green Point (Fidalgo Island) to Lawrence Point (Orcas Island) are considered estuarine, as are all of the Strait of Georgia and the San Juan Islands north of Orcas Island. To the east of Deception Pass, and to the south and east of Admiralty Head, and south of Point Wilson on the Quimper Peninsula, is Puget Sound proper, which is considered to be entirely estuarine. All waters existing within bays from Point Wilson westward to Cape Flattery and south to the North Jetty of the Columbia River shall also be categorized as estuarine.

(c) In oceanic waters, mixing zones, singularly or in combination with other mixing zones, shall not extend in any horizontal direction from the discharge port(s) for a distance greater than three hundred feet plus the depth of water over the discharge port(s) as measured during mean lower low water. For the purpose of this section, all marine waters not classified as estuarine in (b)(ii) of this subsection shall be categorized as oceanic.

(d) In lakes, and in reservoirs having a mean detention time greater than fifteen days, mixing zones shall not be allowed unless it can be demonstrated to the satisfaction of the department that:

(i) Other siting, technological, and managerial options that would avoid the need for a lake mixing zone are not reasonably achievable;

(ii) Overriding considerations of the public interest will be served; and

(iii) All technological and managerial methods available for pollution reduction and removal that are economically achievable would be implemented prior to discharge. Such methods may include, but not be limited to, advanced waste treatment techniques.

(e) In lakes, and in reservoirs having a mean detention time greater than fifteen days, mixing zones, singularly or in combination with other mixing zones, shall comply with the most restrictive combination of the following:

(i) Not exceed ten percent of the water body volume;

(ii) Not exceed ten percent of the water body surface area (maximum radial extent of the plume regardless of whether it reaches the surface); and

(iii) Not extend beyond fifteen percent of the width of the water body.

(8) Acute criteria are based on numeric criteria and toxicity tests approved by the department, as generally guided under WAC ((~~173-201A-040~~) 173-201A-240) (1) through (5), and shall be met as near to the point of discharge as practicably attainable. Compliance shall be determined by monitoring data or calibrated models approved by the department utilizing representative dilution ratios. A zone where acute criteria may be exceeded is allowed only if it can be demonstrated to the department's satisfaction the concentration of, and duration and frequency of exposure to the discharge, will not create a barrier to the migration or translocation of indigenous organisms to a degree that has the potential to cause damage to the ecosystem. A zone of acute criteria exceedance shall singularly or in combination with other such zones comply with the following maximum size requirements:

(a) In rivers and streams, a zone where acute criteria may be exceeded shall comply with the most restrictive combination of the following (this size limitation may also be applied to estuaries having flow characteristics resembling rivers):

(i) Not extend beyond ten percent of the distance towards the upstream and downstream boundaries of an authorized mixing zone, as measured independently from the discharge port(s);

(ii) Not utilize greater than two and one-half percent of the flow; and

(iii) Not occupy greater than twenty-five percent of the width of the water body.

(b) In oceanic and estuarine waters a zone where acute criteria may be exceeded shall not extend beyond ten percent of the distance established in subsection (7)(b) of this section as measured independently from the discharge port(s).

(9) Overlap of mixing zones.

(a) Where allowing the overlap of mixing zones would result in a combined area of water quality criteria nonattainment which does not exceed the numeric size limits established under subsection (7) of this section, the overlap may be permitted if:

(i) The separate and combined effects of the discharges can be reasonably determined; and

(ii) The combined effects would not create a barrier to the migration or translocation of indigenous organisms to a degree that has the potential to cause damage to the ecosystem.

(b) Where allowing the overlap of mixing zones would result in exceedance of the numeric size limits established under subsection (7) of this section, the overlap may be allowed only where:

(i) The overlap qualifies for exemption under subsections (12) and (13) of this section; and

(ii) The overlap meets the requirements established in (a) of this subsection.

(10) Storm water:

(a) Storm water discharge from any "point source" containing "process wastewater" as defined in 40 C.F.R. Part 122.2 shall fully conform to the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section.

(b) Storm water discharges not described by (a) of this subsection may be granted an exemption to the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section, provided the discharger clearly demonstrates to the department's satisfaction that:

(i) All appropriate best management practices established for storm water pollutant control have been applied to the discharge.

(ii) The proposed mixing zone shall not have a reasonable potential to result in a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health as determined by the department; and

(iii) The proposed mixing zone shall not create a barrier to the migration or translocation of indigenous organisms to a degree that has the potential to cause damage to the ecosystem.

(c) All mixing zones for storm water discharges shall be based on a volume of runoff corresponding to a design storm approved by the department. Exceedances from the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section due to precipitation events greater than the approved design storm may be allowed by the department, if it would not result in adverse impact to existing or characteristic uses of the water body or result in damage to the ecosystem, or adversely affect public health as determined by the department.

(11) Combined sewer overflows complying with the requirements of chapter 173-245 WAC, may be allowed an average once per year exemption to the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section, provided the discharge complies with subsection (4) of this section.

(12) Exceedances from the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section may be considered by the department in the following cases:

(a) For discharges existing prior to November 24, 1992, (or for proposed discharges with engineering plans formally approved by the department prior to November 24, 1992);

(b) Where altering the size configuration is expected to result in greater protection to existing and characteristic uses;

(c) Where the volume of water in the effluent is providing a greater benefit to the existing or characteristic uses of the water body due to flow augmentation than the benefit of removing the discharge, if such removal is the remaining feasible option; or

(d) Where the exceedance is clearly necessary to accommodate important economic or social development in the area in which the waters are located.

(13) Before an exceedance from the numeric size criteria in subsections (7) and (8) of this section and the overlap criteria in subsection (9) of this section may be allowed under subsection (12) of this section, it must clearly be demonstrated to the department's satisfaction that:

(a) AKART appropriate to the discharge is being fully applied;

(b) All siting, technological, and managerial options which would result in full or significantly closer compliance that are economically achievable are being utilized; and

(c) The proposed mixing zone complies with subsection (4) of this section.

(14) Any exemptions granted to the size criteria under subsection (12) of this section shall be reexamined during each permit renewal period for changes in compliance capability. Any significant increase in capability to comply shall be reflected in the renewed discharge permit.

(15) The department may establish permit limits and measures of compliance for human health based criteria (based on lifetime exposure levels), independent of this section.

(16) Sediment impact zones authorized by the department pursuant to chapter 173-204

WAC, Sediment management standards, do not satisfy the requirements of this section.

AMENDATORY SECTION (Amending Order 94-19, filed 11/18/97, effective 12/19/97)

WAC 173-201A-410 ~~140~~ Short-term modifications.

The criteria and special conditions established in WAC ~~((173-201A-030))~~ 173-201A-200 through ((173-201A-140)) 173-201A-260, 173-201A-602 and 173-201A-612 may be modified for a specific water body on a short-term basis (e.g., actual periods of nonattainment would generally be limited to hours or days rather than weeks or months) when necessary to accommodate essential activities, respond to emergencies, or to otherwise protect the public interest, even though such activities may result in a temporary reduction of water quality conditions ~~((below those criteria and classifications established by this regulation. Such activities must be conditioned, timed, and restricted (i.e., hours or days rather than weeks or months) in a manner that will minimize water quality degradation to existing and characteristic uses. In no case will any degradation of water quality be allowed if this degradation significantly interferes with or becomes injurious to characteristic water uses or causes long-term harm to the environment))~~.

(1) A short-term modification will:

(a) Be authorized in writing by the department, and conditioned, timed, and restricted in a manner that will minimize degradation of water quality, existing uses, and designated uses;

(b) Be valid for the duration of the activity requiring modification of the criteria and special conditions in WAC 173-201A-200 through 173-201A-260, 173-201A-602 or 173-201A-612, as determined by the department;

(c) Allow degradation of water quality if the degradation does not significantly interfere with or become injurious to existing or designated water uses or cause long-term harm to the environment; and

(d) In no way lessen or remove the proponent's obligations and liabilities under other federal, state, and local rules and regulations.

(2) The department may authorize a longer duration where the activity is part of an ongoing or long-term operation and maintenance plan, integrated pest or noxious weed management plan, water body or watershed management plan, or restoration plan. Such a plan must be developed through a public involvement process consistent with the Administrative Procedure Act (chapter 34.05 RCW) and be in compliance with SEPA, chapter 43.21C RCW, in which case the standards may be modified for the duration of the plan, or for five years, whichever is less. Such long-term plans may be renewed by the department after providing for another opportunity for public and intergovernmental involvement and review.

(3) The department may allow a major watershed restoration activity that will provide greater benefits to the health of the aquatic system in the long-term (examples include removing dams or reconnecting meander channels) that, in the short term, may cause significant impacts to existing or designated uses as a result of the activities to restore the water body and environmental conditions. Authorization will be given in accordance with subsection (2) of this section.

(4) A short-term modification may be issued in writing by the director or his/her designee to an individual or entity proposing the aquatic application of pesticides, including but not limited to those used for control of federally or state listed noxious and invasive species, and excess populations of native aquatic plants, mosquitoes, burrowing shrimp, and fish, subject to the following terms and conditions:

(a) ((A short-term modification will in no way lessen or remove the project proponent's obligations and liabilities under other federal, state and local rules and regulations.

~~(b))~~ A request for a short-term modification shall be made to the department on forms supplied by the department. Such request shall be made at least thirty days prior to initiation of the proposed activity, and after the project proponent has complied with the requirements of the State Environmental Policy Act (SEPA);

~~((c)) A short-term modification shall be valid for the duration of the activity requiring modification of the criteria and special conditions in WAC 173-201A-030 through 173-201A-140, or for one year, whichever is less. Ecology may authorize a longer duration where the activity is part of an ongoing or long-term operation and maintenance plan, integrated pest or noxious weed management plan, waterbody or watershed management plan, or restoration plan. Such a plan must be developed through a public involvement process consistent with the Administrative Procedure Act (chapter 34.05 RCW) and be in compliance with SEPA, chapter 43.21C RCW, in which case the standards may be modified for the duration of the plan, or for five years, whichever is less;~~

~~(d))~~ (b) Appropriate public notice as determined and prescribed by the director or his/her designee shall be given, identifying the pesticide, applicator, location where the pesticide will be applied, proposed timing and method of application, and any water use restrictions specified in USEPA label provisions;

~~((e))~~ (c) The pesticide application shall be made at times so as to:

- (i) Minimize public water use restrictions during weekends; and
- (ii) Avoid public water use restrictions during the opening week of fishing season, Memorial Day weekend, Independence Day weekend, and Labor Day weekend;

~~((f))~~ (d) Any additional conditions as may be prescribed by the director or his/her designee.

~~((2))~~ (5) A short-term modification may be issued for the control or eradication of noxious weeds identified as such in accordance with the state noxious weed control law, chapter 17.10 RCW, and Control of spartina and purple loosestrife, chapter 17.26 RCW. Short-term modifications for noxious weed control shall be included in a water quality permit issued in accordance with RCW 90.48.445, and the following requirements:

(a) The department may issue water quality permits for noxious weed control ~~((may be issued))~~ to the Washington state department of agriculture (WSDA) for the purposes of coordinating and conducting noxious weed control activities consistent with ~~((their))~~ WSDA's responsibilities under chapters 17.10 and 17.26 RCW. Coordination may include noxious weed control activities identified in a WSDA integrated noxious weed management plan and conducted by individual landowners or land managers.

(b) The department may also issue water quality permits ~~((may also be issued))~~ to individual landowners or land managers for noxious weed control activities where such activities are not covered by a WSDA integrated noxious weed management plan.

~~((3)) The turbidity criteria established under WAC 173-201A-030 shall be modified to allow a temporary mixing zone during and immediately after necessary in-water or shoreline construction activities that result in the disturbance of in-place sediments. A temporary turbidity mixing zone is subject to the constraints of WAC 173-201A-100 (4) and (6) and is authorized only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices to avoid or minimize disturbance of in-place sediments and exceedances of the turbidity criteria. A temporary turbidity mixing zone shall be as follows:~~

(a) ~~For waters up to 10 cfs flow at the time of construction, the point of compliance shall be one hundred feet downstream from activity causing the turbidity exceedance.~~

(b) ~~For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of~~

~~compliance shall be two hundred feet downstream of activity causing the turbidity exceedance.~~

~~(c) For waters above 100 cfs flow at the time of construction, the point of compliance shall be three hundred feet downstream of activity causing the turbidity exceedance.~~

~~(d) For projects working within or along lakes, ponds, wetlands, estuaries, marine waters or other nonflowing waters, the point of compliance shall be at a radius of one hundred fifty feet from activity causing the turbidity exceedance.))~~

NEW SECTION

WAC 173-201A-420 Variance.

(1) The criteria established in WAC 173-201A-200 through 173-201A-260 may be modified for individual facilities, or stretches of waters, through the use of a variance. Variances may be approved by the department when:

(a) The modification is consistent with the requirements of federal law (currently 40 CFR 131.10(g) and 131.10(h));

(b) The water body is assigned variances for specific criteria and all other applicable criteria must be met; and

(c) Reasonable progress is being made toward meeting the original criteria.

(2) The decision to approve a variance is subject to a public and intergovernmental involvement process.

(3) The department may issue a variance for up to five years, and may renew the variance after providing for another opportunity for public and intergovernmental involvement and review.

(4) Variances are not in effect until they have been incorporated into this chapter and approved by the USEPA.

NEW SECTION

WAC 173-201A-430 Site-specific criteria.

(1) Where the attainable condition of existing and designated uses for the water body would be fully protected using an alternative criterion, site-specific criteria may be adopted.

(a) The site-specific criterion must be consistent with the federal regulations on designating and protecting uses (currently 40 CFR 131.10 and 131.11); and

(b) The decision to approve a site-specific criterion must be subject to a public involvement and intergovernmental coordination process.

(2) The site-specific analyses for the development of a new water quality criterion must be conducted in a manner that is scientifically justifiable and consistent with the assumptions and rationale in "*Guidelines for Deriving National Water Quality Criteria for the Protection of Aquatic Organisms and their Uses*," EPA 1985; and conducted in accordance with the procedures established in the "*Water Quality Standards Handbook*," EPA 1994, as revised.

(3) The decision to approve the site-specific criterion must be based on a demonstration that it will protect the existing and attainable uses of the water body.

(4) Site-specific criteria are not in effect until they have been incorporated into this chapter and approved by the USEPA.

NEW SECTION

WAC 173-201A-440 Use attainability analysis.

(1) Removal of a designated use for a water body assigned in this chapter must be based on a use attainability analysis (UAA). A UAA is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors. A use can only be removed through a UAA if it is not existing or attainable.

(2) A UAA proposing to remove a designated use on a water body must be submitted to the department in writing and include sufficient information to demonstrate that the use is neither existing nor attainable.

(3) A UAA must be consistent with the federal regulations on designating and protecting uses (currently 40 CFR 131.10).

(4) Subcategories of use protection that reflect the lower physical potential of the water body for protecting designated uses must be based upon federal regulations (currently 40 CFR 131.10(c)).

(5) Allowing for seasonal uses where doing so would not harm existing or designated uses occurring in that or another season must be based upon federal regulations (currently 40 CFR 131.10(f)).

(6) After receiving a proposed UAA, the department will respond within sixty days of receipt with a decision on whether to proceed toward rule making.

(7) The decision to approve a UAA is subject to a public involvement and intergovernmental coordination process, including tribal consultation.

(8) The department will maintain a list of federally recognized tribes in the state of Washington. During all stages of development and review of UAA proposals, the department will provide notice and consult with representatives of the interested affected Indian tribes on a government-to-government basis, and carefully consider their recommendations.

(9) The results of a UAA are not in effect until they have been incorporated into this chapter and approved by the USEPA.

NEW SECTION

WAC 173-201A-450 Water quality offsets.

(1) A water quality offset occurs where a project proponent implements or finances the implementation of controls for point or nonpoint sources to reduce the levels of pollution for the purpose of creating sufficient assimilative capacity to allow new or expanded discharges. The purpose of water quality offsets is to sufficiently reduce the pollution levels of a water body so that a proponent's actions do not cause or contribute to a violation of the requirements of this chapter and so that they result in a net environmental benefit. Water quality offsets may be used to assist an entity in meeting load allocations targeted under a pollution reduction analysis (such as a total maximum daily load) as established by the department. Water quality offsets may be used to reduce the water quality effect of a discharge to levels that are unmeasurable and in compliance with the water quality antidegradation Tier II analysis (WAC 173-201A-320).

(2) Water quality offsets may be allowed by the department when all of the following conditions are met:

(a) Water quality offsets must target specific water quality parameters.

(b) The improvements in water quality associated with creating water quality offsets for any proposed new or expanded actions must be demonstrated to have occurred in advance of the proposed action.

(c) The technical basis and methodology for the water quality offsets is documented through a technical analysis of pollutant loading, and that analysis is made available for review by the department. The methodology must incorporate the uncertainties associated with any

proposed point or nonpoint source controls as well as variability in effluent quality for sources, and must demonstrate that an appropriate margin of safety is included. The approach must clearly account for the attenuation of the benefits of pollution controls as the water moves to the location where the offset is needed.

(d) Point or nonpoint source pollution controls must be secured using binding legal instruments between any involved parties for the life of the project that is being offset. The proponent remains solely responsible for ensuring the success of offsetting activities for both compliance and enforcement purposes.

(e) Only the proportion of the pollution controls which occurs beyond existing requirements for those sources can be included in the offset allowance.

(f) Water quality offsets must meet antidegradation requirements in WAC 173-201A-300 through 173-201A-330 and federal antibacksliding requirements in CFR 122.44(l).

PART V - IMPLEMENTATION OF STANDARDS

WAC 173-201A-~~500~~ 150 Achievement considerations.

To fully achieve and maintain the foregoing water quality in the state of Washington, it is the intent of the department to apply the various implementation and enforcement authorities at its disposal, including participation in the programs of the federal Clean Water Act (33 U.S.C. 1251 et seq.) as appropriate. It is also the intent that cognizance will be taken of the need for participation in cooperative programs with other state agencies and private groups with respect to the management of related problems. The department's planned program for water pollution control will be defined and revised annually in accordance with section 106 of said federal act. Further, it shall be required that all activities which discharge wastes into waters within the state, or otherwise adversely affect the quality of said waters, be in compliance with the waste treatment and discharge provisions of state or federal law.

[Statutory Authority: Chapter 90.48 RCW. 92-24-037 (Order 92-29), § 173-201A-150, filed 11/25/92, effective 12/26/92.]

AMENDATORY SECTION (Amending Order 94-19, filed 11/18/97, effective 12/19/97)

WAC 173-201A-~~510~~ 160 Means of implementation.

(1) (~~((Discharges from municipal, commercial, and industrial operations.))~~) **Permitting.** The primary means to be used for controlling municipal, commercial, and industrial waste discharges shall be through the issuance of waste (~~((disposal))~~) discharge permits, as provided for in RCW 90.48.160, 90.48.162, and 90.48.260. Waste discharge permits, whether issued pursuant to the National Pollutant Discharge Elimination System or otherwise, must be conditioned so the discharges authorized will meet the water quality standards. No waste discharge permit can be issued that causes or contributes to a violation of water quality criteria, except as provided for in this chapter.

(a) Persons discharging wastes in compliance with the terms and conditions of permits are not subject to civil and criminal penalties on the basis that the discharge violates water quality standards.

(b) Permits must be modified by the department when it is determined that the discharge causes or contributes to a violation of water quality standards. Major modification of permits is subject to review in the same manner as the originally issued permits.

(2) **Miscellaneous waste discharge or water quality effect sources.** The director shall, through the issuance of regulatory permits, directives, and orders, as are appropriate, control miscellaneous waste discharges and water quality effect sources not covered by subsection (1) of this section.

(3) Nonpoint source and storm water pollution.

(a) Activities which generate nonpoint source pollution shall be conducted so as to comply with the water quality standards. The primary means to be used for requiring compliance with the standards shall be through best management practices required in waste discharge permits, rules, orders, and directives issued by the department for activities which generate nonpoint source pollution.

(b) Best management practices shall be applied so that when all appropriate combinations of individual best management practices are utilized, violation of water quality criteria shall be

prevented. If a discharger is applying all best management practices appropriate or required by the department and a violation of water quality criteria occurs, the discharger shall modify existing practices or apply further water pollution control measures, selected or approved by the department, to achieve compliance with water quality criteria. Best management practices established in permits, orders, rules, or directives of the department shall be reviewed and modified, as appropriate, so as to achieve compliance with water quality criteria.

(c) Activities which contribute to nonpoint source pollution shall be conducted utilizing best management practices to prevent violation of water quality criteria. When applicable best management practices are not being implemented, the department may conclude individual activities are causing pollution in violation of RCW 90.48.080. In these situations, the department may pursue orders, directives, permits, or civil or criminal sanctions to gain compliance with the standards.

(d) Activities which cause pollution of storm water shall be conducted so as to comply with the water quality standards. The primary means to be used for requiring compliance with the standards shall be through best management practices required in waste discharge permits, rules, orders, and directives issued by the department for activities which generate storm water pollution. The consideration and control procedures in (b) and (c) of this subsection apply to the control of pollutants in storm water.

(4) General allowance for compliance schedules.

(a) Permits, orders, and directives of the department for existing discharges may include a schedule for achieving compliance with water quality criteria contained in this chapter. Such schedules of compliance shall be developed to ensure final compliance with all water quality-based effluent limits in the shortest practicable time. Decisions regarding whether to issue schedules of compliance will be made on a case-by-case basis by the department. Schedules of compliance may not be issued for new discharges. Schedules of compliance may be issued to allow for: (i) construction of necessary treatment capability; (ii) implementation of necessary best management practices; (iii) implementation of additional storm water best management practices for discharges determined not to meet water quality criteria following implementation of an initial set of best management practices; (iv) completion of necessary water quality studies; or (v) resolution of a pending water quality standards' issue through rule-making action.

(b) For the period of time during which compliance with water quality criteria is deferred, interim effluent limitations shall be formally established, based on the best professional judgment of the department. Interim effluent limitations may be numeric or nonnumeric (e.g., construction of necessary facilities by a specified date as contained in an ecology order or permit).

(c) Prior to establishing a schedule of compliance, the department shall require the discharger to evaluate the possibility of achieving water quality criteria via nonconstruction changes (e.g., facility operation, pollution prevention). Schedules of compliance may in no case exceed ten years, and shall generally not exceed the term of any permit.

(5) Compliance schedules for dams:

(a) All dams in the state of Washington must comply with the provisions of this chapter.

(b) For dams that cause or contribute to a violation of the water quality standards, the dam owner must develop a water quality attainment plan that provides a detailed strategy for achieving compliance. The plan must include:

(i) A compliance schedule that does not exceed ten years;

(ii) Identification of all reasonable and feasible improvements that could be used to meet standards, or if meeting the standards is not attainable, then to achieve the highest attainable level of improvement;

(iii) Any department-approved gas abatement plan as described in WAC 173-201A-200

(1)(f)(ii):

(iv) Analytical methods that will be used to evaluate all reasonable and feasible improvements;

(v) Water quality monitoring, which will be used by the department to track the progress in achieving compliance with the state water quality standards; and

(vi) Benchmarks and reporting sufficient for the department to track the applicant's progress toward implementing the plan within the designated time period.

(c) The plan must ensure compliance with all applicable water quality criteria, as well as any other requirements established by the department (such as through a total maximum daily load, or TMDL, analysis).

(d) If the department is acting on an application for a water quality certification, the approved water quality attainment plan may be used by the department in its determination that there is reasonable assurance that the dam will not cause or contribute to a violation of the water quality standards.

(e) When evaluating compliance with the plan, the department will allow the use of models and engineering estimates to approximate design success in meeting the standards.

(f) If reasonable progress toward implementing the plan is not occurring in accordance with the designated time frame, the department may declare the project in violation of the water quality standards and any associated water quality certification.

(g) If an applicable water quality standard is not met by the end of the time provided in the attainment plan, or after completion of all reasonable and feasible improvements, the owner must take the following steps:

(i) Evaluate any new reasonable and feasible technologies that have been developed (such as new operational or structural modifications) to achieve compliance with the standards, and develop a new compliance schedule to evaluate and incorporate the new technology;

(ii) After this evaluation, if no new reasonable and feasible improvements have been identified, then propose an alternative to achieve compliance with the standards, such as site specific criteria (WAC 173-201A-430), a use attainability analysis (WAC 173-201A-440), or a water quality offset (WAC 173-201A-450).

(h) New dams, and any modifications to existing facilities that do not comply with a gas abatement or other pollution control plan established to meet criteria for the water body, must comply with the water quality standards at the time of project completion.

(i) Structural changes made as a part of a department approved gas abatement plan to aid fish passage, described in WAC 173-201A-200 (1)(f)(ii), may result in system performance limitations in meeting water quality criteria for that parameter at other times of the year.

AMENDATORY SECTION (Amending Order 92-29, filed 11/25/92, effective 12/26/92)

WAC 173-201A-~~520~~ ~~170~~ ((Surveillance.)) Monitoring and compliance.

A continuing surveillance program, to ascertain whether the regulations, waste disposal permits, orders, and directives promulgated and/or issued by the department are being complied with, will be conducted by the department staff as follows:

- (1) Inspecting treatment and control facilities.
- (2) Monitoring and reporting waste discharge characteristics.
- (3) Monitoring receiving water quality.

WAC 173-201A-530 ~~480~~ Enforcement.

To insure that the provisions of chapter 90.48 RCW, the standards for water quality promulgated herein, the terms of waste disposal permits, and other orders and directives of the department are fully complied with, the following enforcement tools will be relied upon by the department, in cooperation with the attorney general as it deems appropriate:

- (1) Issuance of notices of violation and regulatory orders as provided for in RCW 90.48.120.
- (2) Initiation of actions requesting injunctive or other appropriate relief in the various courts of the state as provided for in RCW 90.48.037.
- (3) Levying of civil penalties as provided for in RCW 90.48.144.
- (4) Initiation of a criminal proceeding by the appropriate county prosecutor as provided for in RCW 90.48.140.
- (5) Issuance of regulatory orders or directives as provided for in RCW 90.48.240.

[Statutory Authority: Chapter 90.48 RCW. 92-24-037 (Order 92-29), § 173-201A-180, filed 11/25/92, effective 12/26/92.]

PART VI - USE DESIGNATIONS FOR WATERS OF THE STATE

NEW SECTION

WAC 173-201A-600 Use designations--Fresh waters.

(1) All surface waters of the state not named in Table 602 are to be protected for the designated uses of: Salmon and trout spawning, noncore rearing, and migration; primary contact recreation; domestic, industrial, and agricultural water supply; stock watering; wildlife habitat; harvesting; commerce and navigation; boating; and aesthetic values.

(a) Additionally, the following waters are also to be protected for the designated uses of salmon and trout spawning, core rearing, and migration; and extraordinary primary contact recreation:

(i) All surface waters lying within national parks, national forests, and/or wilderness areas;

(ii) All lakes and all feeder streams to lakes (reservoirs with a mean detention time greater than fifteen days are to be treated as a lake for use designation);

(iii) All surface waters that are tributaries to waters designated salmon and trout spawning, core rearing, and migration; or extraordinary primary contact recreation; and

(iv) All fresh surface waters that are tributaries to extraordinary quality marine waters (WAC 173-201A-610 through 173-201A-612).

(2) The water quality standards for surface waters for the state of Washington do not apply to segments of waters listed in Table 602 that are on Indian reservations.

Table 600 (Key to Table 602)

Abbreviation	General Description
Aquatic Life Uses:	(see WAC 173-201A-200(1))
Char	Char. For the protection of spawning and early tributary rearing (e.g., first year juveniles) of native char (bull trout and Dolly Varden), and other associated aquatic life.
Core Salmon/Trout	Salmon and trout spawning, core rearing, and migration. For the protection of spawning, core rearing, and migration of salmon and trout, and other associated aquatic life.
Noncore Salmon/Trout	Salmon and trout spawning, noncore rearing, and migration. For the protection of spawning, noncore rearing, and migration of salmon and trout, and other associated aquatic life.
Salmon/Trout Rearing	Salmon and trout rearing and migration only. For the protection of rearing and migration of salmon and trout, and other associated aquatic life.

Redband Trout	Non-anadromous interior redband trout. For the protection of waters where the only trout species is a non-anadromous form of self-reproducing interior redband trout (<i>O. mykiss</i>), and other associated aquatic life.
Warm Water Species	Indigenous warm water species. For the protection of waters where the dominant species under natural conditions would be temperature tolerant indigenous nonsalmonid species. Examples include dace, redbelt shiner, chiselmouth, sucker, and northern pikeminnow.
Recreational Uses: (see WAC 173-201A-200(2))	
Extraordinary Primary Cont.	Extraordinary quality primary contact waters. Waters providing extraordinary protection against waterborne disease or that serve as tributaries to extraordinary quality shellfish harvesting areas.
Primary Cont.	Primary contact recreation.
Secondary Cont.	Secondary contact recreation.
Water Supply Uses: (see WAC 173-201A-200(3))	
Domestic Water	Domestic water supply.
Industrial Water	Industrial water supply.
Agricultural Water	Agricultural water supply.
Stock Water	Stock watering.
Miscellaneous Uses: (see WAC 173-201A-200(4))	
Wildlife Habitat	Wildlife habitat.
Harvesting	Fish harvesting.
Commerce/Navigation	Commerce and navigation.
Boating	Boating.
Aesthetics	Aesthetic values.

NEW SECTION

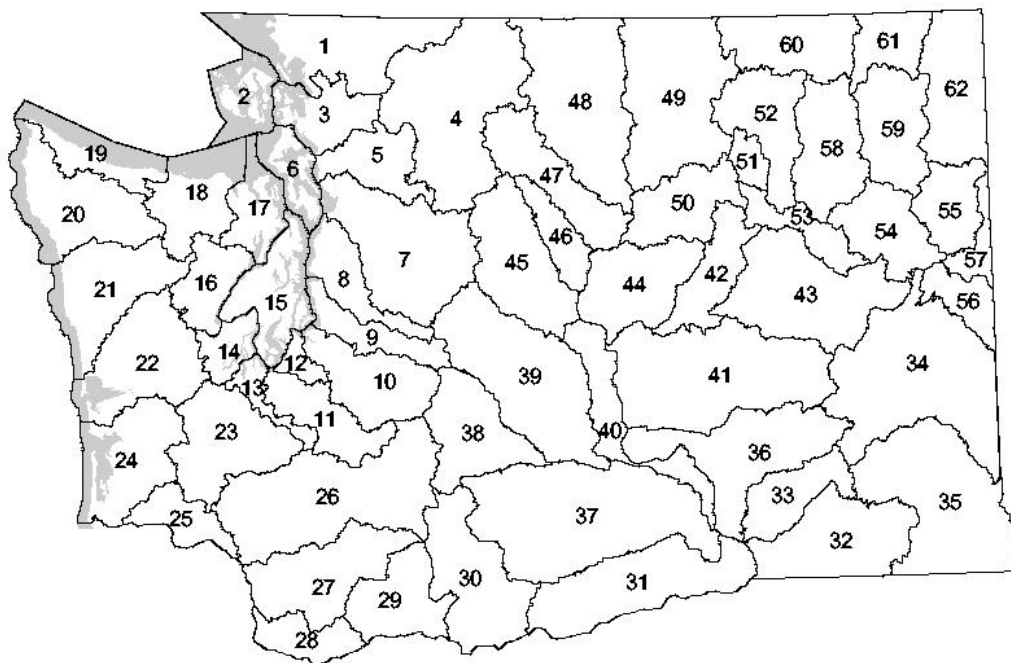
WAC 173-201A-602 Table 602--Use designations for fresh waters by water resource inventory area (WRIA).

(1) Table 602 lists uses for fresh waters. The Columbia River is listed first, followed by other water bodies listed by WRIA. Only the uses with the most stringent criteria are listed. The criteria notes in Table 602 take precedence over the criteria in WAC 173-201A-200 for same parameter.

(2) Table 602 is necessary to determine and fully comply with the requirements of this chapter. If you are viewing a paper copy of the rule from the office of the code reviser or are using their website, Table 602 may be missing (it will instead say "place illustration here"). In this

situation, you may view Table 602 at the department of ecology's website at www.ecy.wa.gov, or request a paper copy of the rule with Table 602 from the department of ecology or the office of the code reviser.

Illustration 1: Water Resources Inventory Area Map



Key:			
1. Nooksack	21. Queets/Quinault	41. Lower Crab	61. Upper Lake Roosevelt
2. San Juan	22. Lower Chehalis	42. Grand Coulee	62. Pend Oreille
3. Lower Skagit/Samish	23. Upper Chehalis	43. Upper Crab/Wilson	
4. Upper Skagit	24. Willapa	44. Moses Coulee	
5. Stillaguamish	25. Grays/Elochoman	45. Wenatchee	
6. Island	26. Cowlitz	46. Entiat	
7. Snohomish	27. Lewis	47. Chelan	
8. Cedar/Sammamish	28. Salmon/Washougal	48. Methow	
9. Duwamish/Green	29. Wind/White Salmon	49. Okanogan	

10. Puyallup/White	30. Klickitat	50. Foster	
11. Nisqually	31. Rock/Glade	51. Nespelem	
12. Chambers/Clover	32. Walla Walla	52. Sanpoil	
13. Deschutes	33. Lower Snake	53. Lower Lake Roosevelt	
14. Kennedy/Goldsborough	34. Palouse	54. Lower Spokane	
15. Kitsap	35. Middle Snake	55. Little Spokane	
16. Skokomish/ Dosewallips	36. Esquatzel Coulee	56. Hangman	
17. Quilcene/Snow	37. Lower Yakima	57. Middle Spokane	
18. Elwha/Dungeness	38. Naches	58. Middle Lake Roosevelt	
19. Lyre/Hoko	39. Upper Yakima	59. Colville	
20. Soleduck/Hoh	40. Alkaki/Squilchuck	60. Kettle	

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

COLUMBIA RIVER

[illegible]

Notes for Columbia River:

1. Temperature shall not exceed a 1-day maximum (1-DMax) of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed 0.3°C due to any single source or 1.1°C due to all such activities combined. Dissolved oxygen shall exceed 90 percent of saturation. Special condition special fish passage exemption as described in WAC 173-201A-200 (1)(f).

2. From Washington-Oregon border (river mile 309.3) to Priest Rapids Dam (river mile 397.1). Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

3. From Washington-Oregon border (river mile 309.3) to Grand Coulee Dam (river mile 596.6). Special condition - special fish passage exemption as described in WAC 173-201A-200 (1)(f).

WRIA 1 - Nooksack

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 2 San Juan

There are no specific waterbody entries for this WRIA.

WRIA 3 Lower Skagit-Samish

[illegible]

Notes for WRIA 3:

1. Skagit River (Gorge by-pass reach) from Gorge Dam (river mile 96.6) to Gorge Powerhouse (river mile 94.2). Temperature shall not exceed a 1-DMax of 21°C due to human activities. When natural conditions exceed a 1-DMax of 21°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C, nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

WRIA 4 Upper Skagit

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)	Core Salmon/Treat									
	Char	Core Salmon/Treat	Non-Core Salmon/Treat	Salmon/Treat Rearing	Redband Trout	Warm Water Species	Ex Primary Cont	Primary Cont	Secondary Cont	Domestic Water
										Industrial Water
										Agricultural Water
										Stock Water
										Wildlife Habitat
										Harvesting
										Commerce/Navigation
										Boating
										Aesthetics
Big Beaver Creek and all tributaries.	✓						✓			✓
Big Creek and all tributaries.	✓						✓			✓
Buck Creek and all tributaries.	✓						✓			✓
Cascade River and Boulder Creek: All waters (including tributaries) above the junction.	✓						✓			✓
Circle Creek and all tributaries.	✓						✓			✓
Clear Creek and all tributaries.	✓						✓			✓
Diobsud Creek and the unnamed tributary at longitude -121.4414 and latitude 48.5850: All waters (including tributaries) above the junction.	✓						✓			✓
Dutch Creek and all tributaries.	✓						✓			✓
Goodell Creek and all tributaries.	✓						✓			✓
Hozomeen Creek and all tributaries.	✓						✓			✓
Illabot Creek and all tributaries.	✓						✓			✓
Jordan Creek and all tributaries.	✓						✓			✓
Lightning Creek and all tributaries.	✓						✓			✓
Little Beaver Creek and all tributaries.	✓						✓			✓
Murphy Creek and all tributaries.	✓						✓			✓
Rocky Creek and all tributaries.	✓						✓			✓
Ruby Creek and all tributaries.	✓						✓			✓
Sauk River and Falls Creek: All waters (including tributaries) above the junction.	✓						✓			✓
Silver Creek and all tributaries.	✓						✓			✓
Skagit River and tributaries, except the other waters listed for this WRIA. ¹		✓					✓			✓
Stetattle Creek and all tributaries.	✓						✓			✓
Straight Creek and all tributaries.	✓						✓			✓
Suitattle River all tributaries above Harriet Creek.	✓						✓			✓
Sulfur Creek and all tributaries.	✓						✓			✓
Tenas Creek and all tributaries.	✓						✓			✓

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

Notes for WRIA 4:

1. Skagit River (Gorge by-pass reach) from Gorge Dam (river mile 96.6) to Gorge Powerhouse (river mile 94.2). Temperature shall not exceed a 1-DMax of 21°C due to human action. When natural conditions exceed a 1-DMax of 21°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C, nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

WRIA 5 Stillaguamish

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Char
Core Salmon/TROUT
Non-Core Salmon/TROUT
Salmon/TROUT Rearing
Redband Trout
Warm Water Species
Ex Primary Cont
Primary Cont
Secondary Cont
Domestic Water
Industrial Water
Agricultural Water
Stock Water
Wildlife Habitat
Harvesting
Commerce/Navigation
Boating
Aesthetics

Notes for WRIA 9:

1. No waste discharge will be permitted for the Green River and tributaries (King County) from west boundary of Sec. 13-T21N-R7E (river mile 59.1) to headwaters.

WRIA 10 Puyallup-White

Carbon River and Evans Creek: All waters (including tributaries) above the junction, except those waters in or above the Snoqualmie National Forest or Mt. Rainier National Park.	✓								✓			✓	✓	✓	✓	✓	✓	✓
Carbon River and Evans Creek: All waters (including tributaries) above the junction that are in or above the Snoqualmie National Forest or Mt. Rainier National Park.	✓							✓				✓	✓	✓	✓	✓	✓	✓
Clearwater River and Milky Creek: All waters (including tributaries) above the junction.	✓							✓				✓	✓	✓	✓	✓	✓	✓
Mowich River and all tributaries.	✓							✓				✓	✓	✓	✓	✓	✓	✓
Puyallup River from mouth to river mile 1.0.					✓							✓	✓	✓	✓	✓	✓	✓
Puyallup River from river mile 1.0 to Kings Creek (river mile 31.6).				✓					✓			✓	✓	✓	✓	✓	✓	✓
Puyallup River from Kings Creek (river mile 31.6) to Deer Creek.		✓								✓		✓	✓	✓	✓	✓	✓	✓
Puyallup River and Deer Creek: All waters (including tributaries) above the junction.	✓								✓			✓	✓	✓	✓	✓	✓	✓
Puyallup River's unnamed tributaries at longitude -121.9903 and latitude 46.8790 (upstream of Niesson Creek).	✓								✓			✓	✓	✓	✓	✓	✓	✓
South Prairie Creek and all tributaries above the Kepka Fishing Pond, except those waters in or above the Snoqualmie National Forest.	✓								✓			✓	✓	✓	✓	✓	✓	✓
South Prairie Creek and all tributaries above the Kepka Fishing Pond that are in or above the Snoqualmie National Forest.	✓							✓				✓	✓	✓	✓	✓	✓	✓
Voight Creek and Bear Creek: All waters (including tributaries) above the junction, except those waters in or above the Snoqualmie National Forest or Mt. Rainier National Park.	✓								✓			✓	✓	✓	✓	✓	✓	✓
Voight Creek and Bear Creek: All waters (including tributaries) above the junction that are in or above the Snoqualmie National Forest or Mt. Rainier National Park.	✓							✓				✓	✓	✓	✓	✓	✓	✓
White River from Mud Mountain Dam (river mile 27.1) to Huckleberry Creek.		✓						✓				✓	✓	✓	✓	✓	✓	✓

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 11 Nisqually

[illegible]

WRIA 12 Chambers-Clover

[illegible]

WRIA 13 Deschutes

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Deschutes River from boundary of Snoqualmie National Forest (river mile 48.2) to headwaters.

WRIA 14 Kennedy-Goldsborough

There are no specific waterbody entries for this WRIA.

WRIA 15 Kitsap

Union River and tributaries from Bremerton Waterworks Dam (river mile 6.9) to headwaters.¹

Notes for WRIA 15:

1. No waste discharge will be permitted.

WRIA 16 Skokomish-Dosewallips

Brown Creek and the unnamed tributary at longitude -123.2857 and latitude 47.4264; All waters (including tributaries) above the junction.

Dosewallips River and tributaries.

Duckabush River and tributaries.

Hamma Hamma River and tributaries.

Lebar Creek and the unnamed tributary at longitude -123.3087 and latitude 47.4416: All waters (including tributaries) above the junction.

Rock Creek and the unnamed tributary at longitude -123.3496 and latitude 47.3894: All waters (including tributaries) above the junction.

Skokomish River and tributaries, except for the waters specifically listed in this table:

Brown Creek, Lebar Creek, Rock Creek, North Fork Skokomish River, South Fork Skokomish River, and Vance Creek.

Skokomish River, North Fork, and all tributaries above Lake Cushman Upper Dam.

Skokomish River, South Fork, and Cedar Creek: All waters (including tributaries) above the junction.

Vance Creek and Cabin Creek all waters above the junction.

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)	✓	✓
Char	✓	✓
Core Salmon/Trout		
Non-Core Salmon/Trout		
Salmon/Trout Rearing		
Redband Trout		
Warm Water Species	✓	✓
Ex Primary Cont		
Primary Cont		
Secondary Cont	✓	✓
Domestic Water	✓	✓
Industrial Water	✓	✓
Agricultural Water	✓	✓
Stock Water	✓	✓
Wildlife Habitat	✓	✓
Harvesting	✓	✓
Commerce/Navigation	✓	✓
Boating	✓	✓
Aesthetics	✓	✓

WRIA 19 Lyre-Hoko

There are no specific waterbody entries for this WRIA.

WRIA 20 Soleduc

[illegible]

WRIA 21 Queets-Quinault

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 22 Lower Chehalis

Baker Creek and the unnamed tributary at longitude -123.4142 and latitude 47.3301: All waters (including tributaries) above the junction.

Big Creek and Middle Fork Big Creek: All waters (including tributaries) above the junction.

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 23 Upper Chehalis

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

Notes for WRIA 23:

1. Dissolved oxygen shall exceed 5.0 mg/L from June 1 to September 15. For the remainder of the year, the dissolved oxygen shall meet standard criteria.
2. Dissolved oxygen shall exceed 6.5 mg/L.

WRIA 24 Willapa

[illegible]

WRIA 25 Grays-Elokoman

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

WRIA 26 Cowlitz

[illegible]

WRIA 27 Lewis

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 28 Salmon-Washougal

[illegible]

WRIA 29 Wind-White Salmon

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

White Salmon River and Cascade Creek: All waters (including tributaries) above the junction.

WRIA 30 Klickitat

Clearwater Creek and Trappers Creek: All waters (including tributaries) above the junction.

Cougar Creek and Big Muddy Creek: All waters (including tributaries) above the junction.

Diamond Creek and Caitin Creek: All waters (including tributaries) above the junction.

Diamond Fork's unnamed tributaries at longitude -121.1562 and latitude 46.4205.

Diamond Fork's unnamed tributaries at longitude -121.1590 and latitude 46.4355 (outlet of Maiden Springs).

Fish Lake Stream and all tributaries.

Frasier Creek and Outlet Creek: All waters (including tributaries) above the junction.

Klickitat River from Little Klickitat River (river mile 19.8) to Diamond Fork.

Klickitat River and all tributaries above the junction with Diamond Fork.

Little Muddy Creek and all tributaries.

McCreedy Creek and all tributaries.

WRIA 31 Rock-Glade

There are no specific waterbody entries for this WRIA.

WRIA 32 Walla Walla

Blue Creek and the unnamed tributary at longitude -118.0956 and latitude 46.0579: All waters (including tributaries) above the junction.

Mill Creek from mouth to 13th Street Bridge in Walla Walla (river mile 6.4).¹

Mill Creek from 13th Street Bridge in Walla Walla (river mile 6.4) to Walla Walla Waterworks Dam (river mile 11.5).

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

Notes for WRIA 32:

1. Dissolved oxygen concentration shall exceed 5.0 mg/L.
2. No waste discharge will be permitted for Mill Creek and tributaries from city of Walla Walla Waterworks Dam (river mile 21.6) to headwaters.

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

Notes for WRIA 35:

1. Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed t =

2. The following two notes apply:

(a) Below Clearwater River (river mile 139.3). Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$. Special condition - special fish passage exemption as described in WAC 173-201A-200 (1) (f).

(b) Above Clearwater River (river mile 139.3). Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increases will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed 0.3°C due to any single source or 1.1°C due to all such activities combined.

WRIA 36 Esquatzel Coulee

There are no specific waterbody entries for this WRIA.

WRIA 37 Lower Yakima

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

	Char	Core Salmon/TROUT	Non-Core Salmon/TROUT	Salmon/TROUT Rearin	Redband Trout	Warm Water Species	Ex Primary Cont	Primary Cont	Secondary Cont	Domestic Water	Industrial Water	Agricultural Water	Stock Water	Wildlife Habitat	Harvesting	Commerce/Navigation	Boating	Aesthetics
Ahtanum Creek, South Fork, and all tributaries.	✓							✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Carpenter Gulch and all tributaries.	✓							✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Foundation Creek and all tributaries.	✓							✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Nasty Creek and all tributaries.	✓							✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Sulphur Creek.									✓		✓	✓	✓	✓	✓	✓	✓	✓
Yakima River from mouth to Cle Elum River (river mile 185.6). ¹		✓		✓							✓	✓	✓	✓	✓	✓	✓	✓

Notes for WRIA 37:

1. Temperature shall not exceed a 1-DMax of 21.0°C due to human activities. When natural conditions exceed a 1-DMax of 21.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

WRIA 38 Naches

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 39 Upper Yakima

[illegible]

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Yakima River and tributaries from Cle Elum River (river mile 185.6) to Stampede Creek except for the waters specifically listed in this table: Big Boulder Creek, Cle Elum River, Cooper River, Little Kachess Lake, Paris Creek and Wapatus River.	✓						✓	✓	✓
Yakima River and all tributaries above Stampede Creek.	✓						✓	✓	✓

Notes for WRIA 39:

1. Temperature shall not exceed a 1-DMax of 21.0°C due to human activities. When natural conditions exceed a 1-DMax of 21.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

WRIA 40 Alkaki-Squilchuck

There are no specific waterbody entries for this WRIA.

WRIA 41 Lower Crab

Crab Creek and tributaries.

[illegible]

WRIA 43 Upper Crab-W

Crab Creek and tributaries.

WRIA 44 Moses Coulee

There are no specific waterbody entries for this WRIA.

WRIA 45 Wenatchee

Chikamin Creek and all tributaries.

[illegible]

Chiwawa River from mouth to unnamed creek at longitude -120.8409 and latitude 48.0595 (near Phelps Creek).

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

[illegible]

WRIA 46 Entiat

Brennegan Creek and the unnamed tributary at longitude -120.4185 and latitude 47.9098: All waters (including tributaries) above the junction.	✓						✓	✓	✓	✓
Entiat River from Wenatchee National Forest boundary (river mile 20.5) to Silver Creek.		✓					✓	✓	✓	✓

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

	✓	✓
Char	✓	✓
Core Salmon/Trout		
Non-Core Salmon/Trout		
Salmon/Trout Rearranging		
Redband Trout		
Warm Water Species	✓	✓
Ex Primary Cont		
Primary Cont		
Secondary Cont	✓	✓
Domestic Water	✓	✓
Industrial Water	✓	✓
Agricultural Water	✓	✓
Stock Water	✓	✓
Wildlife Habitat	✓	✓
Harvesting	✓	✓
Commerce/Navigation	✓	✓
Boating	✓	✓
Aesthetics	✓	✓

WRIA 49 Okanogan

Okanogan River.

WRIA 50 Foster

There are no specific waterbody entries for this WRIA.

WRIA 51 Nesepelem

There are no specific waterbody entries for this WRIA.

WRIA 52 Sanpoil

There are no specific waterbody entries for this WRIA.

WRIA 53 Lower Lake Roosevelt

There are no specific waterbody entries for this WRIA.

WRIA 54 Lower Spokane

[illegible]

Notes for WRIA 54:

1. Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

2. a. The average euphotic zone concentration of total phosphorus (as P) shall not exceed 25 μ g/L during the period of June 1 to October 31.

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

Char
Core Salmon/TROUT
Non-Core Salmon/TROUT
Salmon/TROUT Rearing
Redband Trout
Warm Water Species
Ex Primary Cont
Primary Cont
Secondary Cont
Domestic Water
Industrial Water
Agricultural Water
Stock Water
Wildlife Habitat
Harvesting
Commerce/Navigation
Boating
Aesthetics

b. Temperature shall not exceed a l-DMax of 20.0°C, due to human activities. When natural conditions exceed a l-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

3. Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time exceed $t=34/(T+9)$.

WRIA 55 Little Spokane

There are no specific waterbody entries for this WRIA.

WRIA 56 Hangman

There are no specific waterbody entries for this WRIA.

WRIA 57 Middle Spokane

Lake Creek and all tributaries.

Spokane River from Nine Mile Bridge (river mile 58.0) to the Idaho border (river mile 96.5).¹

Notes on WRIA 57:

1. Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time exceed $t=34/(T+9)$.

WRIA 58 Middle Lake Roosevelt

There are no specific waterbody entries for this WRIA.

WRIA 59 Colville

Colville River.

WRIA 60 Kettle

There are no specific waterbody entries for this WRIA.

TABLE 602

Use Designations for Fresh Waters by Water Resource Inventory Area (WRIA)

WRIA 61 Upper Lake Roosevelt

There are no specific waterbody entries for this WRIA.

WRIA 62 Pend Oreille

All streams flowing into Idaho from Kalispell Creek (at longitude -117.0339 and latitude 48.5865) to the Canadian border.

Calispell Creek (including tributaries) from Small Creek to Calispell Lake.

Calispell Lake and all tributaries.

Le Clerc Creek, East Branch, and West Branch Le Clerc Creek: All waters (including tributaries) above the junction, except those waters in or above the Colville National Forest.

Le Clerc Creek, East Branch, and West Branch Le Clerc Creek: All waters (including tributaries) above the junction that are in or above the Colville National Forest.

Harvey Creek and Paupac Creek: All waters (including tributaries) above the junction.

Pass Creek and all tributaries.

Pend Oreille River from Canadian border (river mile 16.0) to Idaho border (river mile 87.7).¹

Small Creek and all tributaries, except those waters in or above the Kaniksu National Forest.

Small Creek and all tributaries that are in or above the Kaniksu National Forest.

South Salmo River and all tributaries.

Sullivan Creek and Gypsy Creek: All waters (including tributaries) above the junction.

Notes for WRIA 62:

1. Temperature shall not exceed a 1-DMax of 20.0°C due to human activities. When natural conditions exceed a 1-DMax of 20.0°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed $t = 34/(T + 9)$.

NEW SECTION

WAC 173-201A-610 Use designations--Marine waters.

All marine surface waters have been assigned specific uses for protection under Table 612.

Table 610 (Key to Table 612)

Abbreviation	General Description
Aquatic Life Uses:	(see WAC 173-201A-210(1))
Extraordinary	Extraordinary quality salmonid and other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Excellent	Excellent quality salmonid and other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Good	Good quality salmonid migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Fair	Fair quality salmonid and other fish migration.
Shellfish Harvesting:	(see WAC 173-201A-210(2))
Shellfish Harvest	Shellfish (clam, oyster, and mussel) harvesting.
Recreational Uses:	(see WAC 173-201A-210(3))
Primary Cont.	Primary contact recreation.
Secondary Cont.	Secondary contact recreation.
Miscellaneous Uses:	(see WAC 173-201A-210(4))
Wildlife Habitat	Wildlife habitat.
Harvesting	Salmonid and other fish harvesting, and crustacean and other shellfish (crabs, shrimp, scallops, etc.) harvesting.
Com./Navig.	Commerce and navigation.
Boating	Boating.
Aesthetics	Aesthetic values.

NEW SECTION

WAC 173-201A-612 Table 612--Use designations for marine waters.

(1) Table 612 lists uses for marine waters. Only the uses with the most stringent criteria are listed. The criteria notes in Table 612 take precedence over the criteria in WAC 173-201A-210 for the same parameter.

(2) Table 612 is necessary to determine and fully comply with the requirements of this chapter. If you are viewing a paper copy of the rule from the office of the code reviser or are using their website, Table 612 may be missing (it will instead say "place illustration here"). In this situation, you may view Table 612 at the department of ecology's website at www.ecy.wa.gov, or request a paper copy of the rule with Table 612 from the department of ecology or the office of the code reviser.

Table 612 Use Designations for Marine Waters	Aquatic Life Uses				Shellfish Harvest	Recreational Uses		Misc. Uses				
	Extraordinary	Excellent	Good	Fair		Primary Cont	Secondary Cont	Wildlife Habitat	Harvesting	Com/Navig	Boating	Aesthetics
Budd Inlet south of latitude 47°04'N (south of Priest Point Park).			✓				✓	✓	✓	✓	✓	✓
Coastal waters: Pacific Ocean from Ilwaco to Cape Flattery.	✓				✓	✓		✓	✓	✓	✓	✓
Commencement Bay south and east of a line bearing 258° true from "Brown's Point" and north and west of line bearing 225° true through the Hylebos waterway light.		✓			✓	✓		✓	✓	✓	✓	✓
Commencement Bay, inner, south and east of a line bearing 225° true through Hylebos waterway light except the city waterway south and east of south 11th Street.			✓				✓	✓	✓	✓	✓	✓
Commencement Bay, city waterway south and east of south 11th Street.				✓			✓	✓		✓	✓	✓
Drayton Harbor, south of entrance.		✓			✓	✓		✓	✓	✓	✓	✓
Dyes and Sinclair inlets west of longitude 122°37'W.		✓			✓	✓		✓	✓	✓	✓	✓
Elliott Bay east of a line between Pier 91 and Duwamish Head.		✓			✓	✓		✓	✓	✓	✓	✓
Everett Harbor, inner, northeast of a line bearing 121° true from approximately 47°59'5"N and 122°13'44"W (southwest corner of the pier).			✓				✓	✓	✓	✓	✓	✓
Grays Harbor west of longitude 123°59'W.		✓			✓	✓		✓	✓	✓	✓	✓
Grays Harbor east of longitude 123°59'W to longitude 123°45'45"W (Cosmopolis Chehalis River, river mile 3.1). Special condition - dissolved oxygen shall exceed 5.0 mg/L.			✓				✓	✓	✓	✓	✓	✓
Guemes Channel, Padilla, Samish and Bellingham bays east of longitude 122°39'W and north of latitude 48°27'20"N.		✓			✓	✓		✓	✓	✓	✓	✓
Hood Canal.	✓				✓	✓		✓	✓	✓	✓	✓

Table 612 Use Designations for Marine Waters	Aquatic Life Uses				Shellfish Harvest	Recreational Uses		Misc. Uses				
	Extraordinary	Excellent	Good	Fair		Primary Cont	Secondary Cont	Wildlife Habitat	Harvesting	Com/Navig	Boating	Aesthetics
Mukilteo and all North Puget Sound west of longitude 122°39'W (Whidbey, Fidalgo, Guemes and Lummi islands and State Highway 20 Bridge at Deception Pass), except as otherwise noted.	✓				✓	✓		✓	✓	✓	✓	✓
Oakland Bay west of longitude 123°05'W (inner Shelton harbor).			✓				✓	✓	✓	✓	✓	✓
Port Angeles south and west of a line bearing 152° true from buoy "2" at the tip of Ediz Hook.		✓			✓	✓		✓	✓	✓	✓	✓
Port Gamble south of latitude 47°51'20"N.		✓			✓	✓		✓	✓	✓	✓	✓
Port Townsend west of a line between Point Hudson and Kala Point.		✓			✓	✓		✓	✓	✓	✓	✓
Possession Sound, south of latitude 47°57'N.	✓				✓	✓		✓	✓	✓	✓	✓
Possession Sound, Port Susan, Saratoga Passage, and Skagit Bay east of Whidbey Island and State Highway 20 Bridge at Deception Pass between latitude 47°57'N (Mukilteo) and latitude 48°27'20"N (Similk Bay), except as otherwise noted.		✓			✓	✓		✓	✓	✓	✓	✓
Puget Sound through Admiralty Inlet and South Puget Sound, south and west to longitude 122°52'30"W (Brisco Point) and longitude 122°51'W (northern tip of Hartstene Island).	✓				✓	✓		✓	✓	✓	✓	✓
Sequim Bay southward of entrance.	✓				✓	✓		✓	✓	✓	✓	✓
South Puget Sound west of longitude 122°52'30"W (Brisco Point) and longitude 122°51'W (northern tip of Hartstene Island, except as otherwise noted).		✓			✓	✓		✓	✓	✓	✓	✓
Strait of Juan de Fuca.	✓				✓	✓		✓	✓	✓	✓	✓
Totten Inlet and Little Skookum Inlet, west of longitude 122°56'32" (west side of Steamboat Island).	✓				✓	✓		✓	✓	✓	✓	✓
Willapa Bay seaward of a line bearing 70° true through Mailboat Slough light (Willapa River, river mile 1.8).		✓			✓	✓		✓	✓	✓	✓	✓

NEW SECTION

The following sections of the Washington Administrative Code are recodified as follows:

Old WAC number	New WAC number
173-201A-040	173-201A-240
173-201A-050	173-201A-250
173-201A-100	173-201A-400
173-201A-110	173-201A-410
173-201A-150	173-201A-500
173-201A-160	173-201A-510
173-201A-170	173-201A-520
173-201A-180	173-201A-530

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 173-201A-030	General water use and criteria classes.
WAC 173-201A-060	General considerations.
WAC 173-201A-070	Antidegradation.
WAC 173-201A-080	Outstanding resource waters.
WAC 173-201A-120	General classifications.
WAC 173-201A-130	Specific classifications--Freshwater.
WAC 173-201A-140	Specific classifications--Marine water.